Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 12.12.97 : ISO 4113

Combination No. : 0 402 746 604

Injection pump

Pump designation : PES6P120A720RS7366 EP type number : 0 412 726 933

Governor

Governer design. : RQV275...1100PA1208

: -1K

Soverner no.

: 0 421 815 492

Cust. part No. :

Customer-spec. information

Customer : IVECO-FRANCE

Motor

: 8460.41c-3000

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C

40

Tolerance °C : + 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h

: 160

Tolerance l/h: + 10.0

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

A01

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter:

3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 2.85 Prestroke mm : ← 0.05 Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 20.50

Tolerance mm : \leftarrow 0.50

Firing order : 1~ 5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Check

tolerance *NW : + 0.40

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 11.20

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 198.0	Tolerance man : + 0.25
Tolerance	+ Rated speed rpm : 1440 + guide sleeve
cm3/1000 strokes : ← 1.0	† travel mm : 13.50
Check tolerance cm3/1000s. : + 4.0	Tolerance mm : + 0.50
Spreed	GUIDE SLEEVE POSITION
	1
Tolerance	+ control lever
cm3/1000 strokes : 5.0	+ position degree : - 1
	+ Rated speed rpm : 1295
Check tolerance	†
cm3/1000s. : 9.0	+ Rack travel in mm : 10.65
	Tolerance mm : + 2.70
	Ī
Rated speed rpm : 275	FULL LOAD DELIVERY AT FULL LOAD STOP
	TOLL LOND BELLVENT AT TOLL LOAD STOP
Rack travel in mm: 6.40	+ Rated speed rpm : 600
Tolerance mm : +- 0.10	+ Aneroid pressure
Del. quantity	+ hPa : 1200
cm3/1000 strokes : 19.0	+ Del. quantity
Tolerance	+ cm3/1000 strokes : 198.0
cm3/1000 strokes : + 3.0	Tolerance
Check tolerance cm3/1000s. : +- 6.0	+ cm3/1000 strokes : +- 1.0 + Check tolerance
Spreed	- cm3/1000s. : +- 4.0
Tolerance	Spreed
cm3/1000 strokes : 8.0	+ Tolerance
Check tolerance	+ cm3/1000 strokes : 5.0
cm3/1000s. : 12.0	+ Check tolerance
	+ cm3/1000s. : 9.0
(B) SETTING OF INJECTION PUMP	†
WITH GOVERNOR	T
WITH GOVERNOR	CONTROL LEVER
	+
GUIDE SLEEVE TRAVEL	+ control lever
	position degree : 118.0
Rated speed rpm : 1180	tolerance degree : +- 4.0
guide sleeve	T DATES OFFER
travel mm : 10.07 Tolerance mm : +- 0.15	RATED SPEED
TOTE CALL THE TOTAL TOTA	+ rack travel mm : 10.30 + Rated speed rpm : 1145
Rated speed rpm : 275	Tolerance 1/min : + 5
guide sleeve	+ Check
travel mm : 1.70	+ speed 1/min : +- 10
Tolerance mma : + 0.20	+
	rack travel mm : 4.00
Rated speed rpm : 802	+ Rated speed rpm : 1245
guide sleeve	+ Tolerance 1/min : + 15
travel mm : 6.49 Tolerance mm : +- 0.25	+ Check
Tolerance mm : + 0.25	+ speed 1/min : +- 20
Rated speed rpm : 460	rack travel mm : 0.50
guide sleeve	Tolerance mm : + 0.50
travel mm : 3.77	Rated speed rpm : 1350
	•

control lever

position degree : 75.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 175

CRT mm min. :> 7.90

Testing:

Rated speed rpm : 275
rack travel mm : 6.40
Tolerance mm : + 0.10

Rated speed rpm : 315

TORQUE CONTROL

Rated speed rpm : 600 rack travel mm : 11.20 Tolerance mm : + 0.05

Rated speed rpm : 1100 rack travel mm : 11.35 Tolerance mm : + 0.15

Rated speed rpm : 800 rack travel mm : 11.25 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 11.20
Tolerance mm : +- 0.10

Rated speed rpm : 500
Pressure hPa : rack travel mm : 9.20
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 210 rack travel mm : 9.80 Tolerance mm : + 0.30

Pressure hPa : 300 rack travel mm : 10.65 Tolerance mm : + 0.20

Start interlock

Rated speed rpm : > 180 Rated speed rpm : < 220

Check

speed 1/min : > 160 Check

speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200 Rated speed rpm : 1100 Del. quantity

cm3/1000 strokes : 228.0

Tolerance cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 6.0

rack travel mm : 11.25
Tolerance mm : + 0.10

Aneroid pressure

hPa : Rated speed rpm : 600
Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Set starting CRT at K-cam.

Rated speed rpm : 100 rack travel mm : 11.90 Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 110.0

Tolerance

cm3/1000 strokes : \leftarrow 15.0

Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 275

Rack travel in mm : 6.40 : + 0.10 Tolerance am

Del. quantity

cm3/1000 strokes : 19.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s. : +- 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 10.11.97 : ISO 4113

Combination No.

: 0 402 746 655

Injection pump

Pump designation: PES6P120A320RS7343 : 0 412 726 915

EP type number

Governor

Governer design. : RQV300...1000PA1160

: -1K

Governer no.

: 0 421 815 559

Cust. part No. : 5168 66-250

Customer-spec. information

Customer

: RENAULT V.I.

Motor

: MIDR 062356 B41

Power KW

: 288.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

40

Tolerance *C

Overflow valve : 2 417 413 071

Inlet press. bar : 2.5

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

208.5

Tolerance bar

: + 1.5

Test lines

: 1 680 750 089

Outside diameter : 8.0

A05

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : + 1.0

Prestroke mm 4.50

Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 11.00

Tolerance mn: + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

*NW after s.o.d. : -0.40

Tolerance : + - 0.50

Check

tolerance NW : +- 0.75

Barrel no. : 1

Beginning of delivery differende

betw. rack trav.

21.00

and maximum rack

travel 11.00

2.25

Difference * CS :

CRT ZERO POSITION

			- 1	
		†	Tolerance man	: ← 0.20
Rack travel in man	: 13.00	I	Rated speed rpm	: 827
Tolerance mm		1	guide sleeve	. 50.
		+	travel mm	: 5.96
			Tolerance mm	: + 0.25
BASIC SETTING		+		
Datad amand man	. 4000	†	Rated speed rpm	: 550
Rated speed rpm	: 1000	†	guide sleeve travel mm	. 7.44
Del. quantity		I	Tolerance mm	: 3.66 : + 0.25
cm3/1000 strokes	: 356.0	Ţ	TOCCI CHICC IIII	0.2
		1	Rated speed rpm	: 1440
Tolerance		+	guide sleeve	
cm3/1000 strokes	: ← 1.0	+	travel mm	: 13.50
4 1 • 1		+	Tolerance mm	: + 0.50
Check tolerance		+		
cm3/1000s.	: +- 4.0	†	CHIEF OF FENE DOG	TTTON
Spreed			GUIDE SLEEVE POS	TITOM
opi eeu		Ī		
Tolerance		I	control lever	
cm3/1000 strokes	: 5.0	1	position degree	: - 1
			Rated speed rpm	
Check tolerance		+	·	
cm3/1000s.	: 9.0	+	Rack travel in m	m: 12.00
		+	Tolerance mm	: +- 1.30
		+		
Data dama da ana	. 700	†	FINAL LOAD DELTUE	DV 47 DUI 1045 0700
Rated speed rpm	: 300	†	FULL FOAD DELIVE	RY AT FULL LOAD STOP
Rack Travel in mm	-7.80	I	Rated speed rpm	: 1000
Tolerance mm		1	Aneroid pressure	
Del. quantity		1	hPa	: 1200
cm3/1000 strokes	: 36.0	+	Del. quantity	
Tolerance		+	cm3/1000 strokes	: 356.0
cm3/1000 strokes	: ← 1.5	+	Tolerance	
Check tolerance		+	cm3/1000 strokes	: ← 1.0
cm3/1000s.	: + 5.0	†	Check tolerance	
Spreed Tolerance		†		: +- 4.0
cm3/1000 strokes	• 80	Ī	Spreed Tolerance	
Check tolerance		I	cm3/1000 strokes	: 5.0
	: 12.0	I	Check tolerance	
		1	cm3/1000s.	
		+		
(B) SETTING OF IN	JECTION PUMP	+		
WITH GOVERNOR		+		
		+	CONTROL LEVER	
CHINE OF CENE TOWN	EI	+	control lavas	
GUIDE SLEEVE TRAV	EL	†	control lever	• 20/ D
Rated speed rpm	: 1113	Ī	position degree tolerance degree	
guide sleeve	. 1113	I	coterante degree	• • ••
travel mm	: 8.82	1	RATED SPEED	
Tolerance mm		1	rack travel mm	: -1.00
		+	Rated speed rpm	: 1100
Rated speed rpm	: 300	+	Tolerance 1/min	
guide sleeve		+		
travel mm	: 1.29	+	rack travel mm	: -9.00

Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: ← 15 : −12.50 : ← 0.50
LOW IDLE	
control lever position degrée tolerance degree	: 250.0 : + 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 200
CRT am min.	: > -6.80
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : −7.80 : ← 0.10
Rated speed rpm	: 390
TORQUE CONTROL Rated speed rpm	: 1000
Rated speed rpm rack travel mm Tolerance mma	: 600 : -0.65 : ← 0.15
Rated speed rpm rack travel mm Tolerance mm	: 800 : 0.10 : + 0.15
Rated speed rpm rack travel mm Tolerance mm	: 350 : −1.75 : ← 0.30
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 500 : 1200
Rated speed rpm Pressure hPa rack travel mm	: -

Tolerance mm	: ← 0.30
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mma Tolerance mma	: 320 : −2.90 : ← 0.15
Pressure hPa rack travel mma Tolerance mma	: 520 : −1.80 : ← 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 225
Check speed 1/min Check	: > 80
speed 1/min	: < 245
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 381.0
rack travel mm Tolerance mm	: 0.10 : + 0.15
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 500 : 245.0 : + 1.0 : + 4.0
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm	: 100 : 20.25

Tolerance mm Del. quantity	: +-	0.75
cm3/1000 strokes	:	185.0
Tolerance cm3/1000 strokes	: +-	15.0
Check tolerance cm3/1000s.	: +-	19.0

:	300	
: +-	-7.80 0.10	
:	36.0	
: +-	1.5	
: +-	5.0	
:	8.0	
:	12.0	
	: +-	: -7.80 : + 0.10 : 36.0 : + 1.5 : + 5.0 : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 15.12.97

Test oil

: ISO 4113

Combination No.

: 0 402 746 995

Injection pump

Pump designation : PES6P120A320RS7343

EP type number : 0 412 726 915

Governor

Governer design. : RQV300...1000PA1160K

Governer no.

: 0 421 815 420

Cust. part No. : CCEP 5144A 66-232

Customer-spec. information

Customer

: RENAULT V.I.

Motor

: MIDR 062356 A/41

Power KW

: 280.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 2 417 413 071

Inlet press. bar : 2.5

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

: 208.5

Tolerance bar

: + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

CRT ZERO POSITION

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.50 : +- 0.05 Tolerance man

Check

tolerance mm: + 0.10

Rack travel in mm : 11.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

*NW after s.o.d. : -0.40 Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

Barrel no.

1 :

Beginning of delivery differende

betw. rack trav.

21.00 TER

and maximum rack

11,00 travel

Difference * CS :

		† Tolerance mm
Rack travel in ma	: 12.80 : +- 0.05	Rated speed rpm guide sleeve travel mm Tolerance mm
BASIC SETTING		,
Rated speed rpm	: 1000	Rated speed rpm guide sleeve travel mm
Del. quantity cm3/1000 strokes	: 350.0	Tolerance am
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm guide sleeve travel mm
Check tolerance cm3/1000s.	: + 4.0	Tolerance mm Rated speed rpm
Spreed		guide sleeve travel mm Tolerance mm
Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm guide sleeve
Check tolerance cm3/1000s.	: 9.0	travel mm Tolerance mm
Rated speed rpm	: 300	GUIDE SLEEVE POSIT
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: ← 0.10 : 38.0 : ← 1.5 : ← 5.0 : 8.0 : 12.0	control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance
GUIDE SLEEVE TRAV		cm3/1000s. Spreed Tolerance
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1103 : 8.70 : + 0.25	cm3/1000 strokes Check tolerance cm3/1000s.
Rated speed rpm guide sleeve travel mm	: 300 : 1.32	CONTROL LEVER

Tolerance mm	: ← 0.25
Rated speed rpm	: 823
guide sleeve travel mm	. F 02
Tolerance mm	: 5.92 : + 0.25
Toterance man	: - 0.0
Rated speed rpm	: 405
guide sleeve	
travel mm	: 2.43 : + 0.25
Tolerance mm	: 2.43 : + 0.25
Rated speed rpm	
guide sleeve	. 433
travel mmi	: 2.98
Tolerance mm	: 2.98 : + 0.25
Rated speed rpm	: 550
guide sleeve	
travel mm	: 3.66 : + 0.25
Tolerance mm	: + 0.25
Rated speed rpm	: 1440
guide sleeve	
travel mm	: 13.50
Tolerance mm	: ÷ 0.50
GUIDE SLEEVE POSIT	ITOM
control lever position degree Rated speed rpm Rack travel in mm	
position degree Rated speed rpm Rack travel in mm	
position degree Rated speed rpm Rack travel in mm	: 11.60
position degree Rated speed rpm Rack travel in mm Tolerance mm	: 11.60
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY	: 11.60 : + 1.30
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa	: 11.60 : + 1.30 Y AT FULL LOAD STOP
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0 : + 1.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0 : + 1.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0 : + 1.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000strokes Check tolerance cm3/1000strokes Check tolerance cm3/1000strokes Check tolerance	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0 : + 1.0 : + 4.0 : 5.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000strokes	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0 : + 1.0 : + 4.0
position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000strokes Check tolerance cm3/1000strokes Check tolerance	: 11.60 : + 1.30 Y AT FULL LOAD STOP : 1000 : 1200 : 350.0 : + 1.0 : + 4.0 : 5.0

nontrol lavon		†	
control lever position degree tolerance degree		ANEROID/ALTITUDE COMPENSATOR TEST	
RATED SPEED rack travel mm Rated speed rpm	: 1100	SETTING	
Tolerance 1/min		+ Rated speed rpm + Pressure hPa	:
rack travel mm Rated speed rpm Tolerance 1/min	: -€.80 : 1210 : ← 15	+ Rated speed rpm + Pressure hPa + rack travel mm	:
rack travel mm Tolerance mm Rated speed rpm	: -12.30 : + 0.50	Tolerance mm	: -
Rated speed rpm	: 1300	# MEASUREMENT	
		Rated speed rpm	:
		Pressure hPa	:
LOW IDLE		+ rack travel mm	:
		† Tolerance mm	:
control lever		Pressure hPa	•
position degree	: 72.0	+ rack travel mm	:
tolerance degree		Tolerance mm	:
Testing:		<u> </u>	
•		Start interlock	
Rated speed rpm	: 300	+	
rack travel mm	: -7.60	+ Rated speed rpm	: :
Tolerance mm	: ← 0.10	+ Rated speed rpm	:
Rated speed rpm	: 200	Check	
CRT mm max.	: < -6.60	+ speed 1/min + Check	: :
Rated speed rpm	. 700	speed 1/min	: •
Rated Speed (pil	. 370	Ī	
70000 00000		FUEL DELIVERY CHAR	lAC
TORQUE CONTROL Rated speed rpm	. 1000	†	
karen sheed thii	. 1000	Aneroid pressure	
Rated speed rpm	: 600	+ hPa	
rack travel mm	: -0.45	Rated speed rpm	:
Tolerance mm	: +- 0.15	+ Del. quantity	•
			:
Rated speed rpm	: 800	+ Tolerance	
rack travel mm	: 0.10	+ cm3/1000 strokes	: -
Tolerance mm	: ← 0.15	+ Check tolerance	
Datad ansad ans	. 750	+ cm3/1000s.	: -
Rated speed rpm rack travel mm	: 33U · _1.70	†	_
rack travel mm Tolerance mm	-1.7U	rack travel mm	
। अध्याति । स्था	0.30	Tolerance man	•
		T loceratice min	•
		1	

COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 1000 : 1200
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: -
MEASUREMENT	
Rated speed rpm	: 1000
Pressure hPa rack travel mm Tolerance mm	: 320 : -2.80 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 520 : −1.70 : ← 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 225
Check speed 1/min Check speed 1/min	: > 80 : < 245
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1200 : 600 : 381.0
cm3/1000 strokes Check tolerance	: ← 3.0
cm3/1000s.	: +- 6.0
rack travel mma Tolerance mma	: 0.10 : + 0.15
Aneroid pressure hPa	: -

500 Rated speed rpm : Del. quantity

cm3/1000 strokes : 245.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : **←** 4.0

STARTING FUEL DELIVERY

100 Rated speed rpm : rack travel mm : 20.25 : **←** 0.75 Tolerance mm

Del. quantity

cm3/1000 strokes : 185.0

Tolerance

cm3/1000 strokes : \leftarrow 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: -7.60 : ← 0.10 Tolerance mm

Del. quantity

cm3/1000 strokes : 38.0

Tolerance

cm3/1000 strokes : \leftarrow 1.5

Check tolerance

cm3/1000s. : **←** 5.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

: 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.12.97 Test oil : ISO 4113

Combination No. : 0 402 846 302

Injection pump

Pump designation : PE6P120A320RS8520 EP type number : 0 412 826 202

Governor

Governer design. : RQV275...1000PA1269K

Governer no. : 0 421 815 969

Cust. part No. : 1310222/2

Customer—spec. information Customer : DAF Motor : XF 355 M Power KW : 355.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : ← 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 14.05 Tolerance mm : + 0.05

+	guide steeve
Del. quantity cm3/1000 strokes : 344.0	travel mm : 13.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : + 1.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : + 5.0	Rated speed rpm : 1121
Spreed	Rack travel in mm : 13.30 Tolerance mm : +- 1.30
Tolerance cm3/1000 strokes : 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. : 13.0	Rated speed rpm : 980 Aneroid pressure
	hPa : 1500 Del. quantity cm3/1000 strokes : 344.0
Rated speed rpm : 275	Tolerance cm3/1000 strokes : +- 1.0
Rack travel in mm: 4.50 Tolerance mm: + 0.10 Del. quantity	Check tolerance cm3/1000S. : ← 5.0 Spreed
cm3/1000 strokes : 18.0 Tolerance	Tolerance : 8.0
cm3/1000 strokes : + 3.0	Check tolerance cm3/1000S. : 13.0
Spreed + Tolerance + Cm3/1000 strokes : 6.0 +	CONTROL LEVER
Check tolerance cm3/1000s. : 12.0	control lever
(B) SETTING OF INJECTION PUMP	position degree : 118.0 tolerance degree : +- 4.0
WITH GOVERNOR	RATED SPEED rack travel mm : 13.05
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1045 Tolerance 1/min : +- 5 Check
Rated speed rpm : 1058 guide sleeve	speed 1/min : +- 10
travel mm : 9.97 Tolerance mm : + 0.15	rack travel mm : 4.00 Rated speed rpm : 1140 Tolerance 1/min : +- 15
Rated speed rpm : 275 guide sleeve	Check speed 1/min : +- 20
travel mm : 2.04 Tolerance mm : + 0.20	rack travel mm : 0.70 Tolerance mm : +- 0.70
Rated speed rpm : 399 guide sleeve travel mm : 3.39	Rated speed rpm : 1275
Tolerance mm : + 0.25	
Rated speed rpm : 1260	LOW IDLE

control lever

position degree : 73.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 175

CRT mm min. : > 7.00

Testing:

Rated speed rpm : 275
rack travel mm : 4.50
Tolerance mm : + 0.10

Rated speed rpm : 300

TORQUE CONTROL

Rated speed rpm: 980 rack travel mm: 14.05 Tolerance mm: +- 0.05

Rated speed rpm : 800 rack travel mm : 14.05 Tolerance mm : + 0.10

Rated speed rpm : 750 rack travel mm : 13.80 Tolerance mm : + 0.05

Rated speed rpm : 700 rack travel mm : 13.40 Tolerance mm : + 0.10

Rated speed rpm : 600 rack travel mm : 12.80 Tolerance mm : + 0.10

Rated speed rpm : 500 rack travel mm : 12.45 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 980
Pressure hPa : 1500
rack travel mm : 14.05
Tolerance mm : + 0.05

Rated speed rpm : 980
Pressure hPa : rack travel mm : 9.00

Tolerance mm : ← 0.10

MEASUREMENT

Rated speed rpm : 980

Pressure hPa : 750
rack travel mm : 12.80
Tolerance mm : + 0.05

Pressure hPa : 380 rack travel mm : 10.30 Tolerance mm : +- 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1500
Rated speed rpm : 750
rack travel mm : 13.80
Tolerance mm : + 0.05
Del. quantity
cm3/1000 strokes : 361.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance

cm3/1000s. : +- 6.0 Spreed

Tolerance

cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. : 15.0

Aneroid pressure

hPa : Rated speed rpm : 600
Del. quantity

cm3/1000 strokes : 199.0 Tolerance

cm3/1000 strokes : +- 1.0 Check tolerance

cm3/1000s. : + 5.0
Spreed

Tolerance

cm3/1000 strokes : 10.0

Check tolerance cm3/1000s.

15.0

LOW IDLE

Rated speed rpm : 275

Rack travel in mm Tolerance mm	:	+	4.50 0.10
Del. quantity cm3/1000 strokes Tolerance	:		18.0
cm3/1000 strokes Check tolerance	:	+-	3.0
cm3/1000s. Spreed	:	+-	6.0
Tolerance cm3/1000 strokes Check tolerance	:		6.0
cm3/1000s.	:		12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 402 946 027

Injection pump

Pump designation : PES6P120A320RS8047

EP type number : 0 412 926 029

Governor

Governer design. : RQV275...1250PA1312K

60verner no. : 0 421 815 966

Cust. part No. : CCEP 5160A 66-244

Customer-spec. information

Customer : RENAULT V.I.

Motor : MIDR 06.02.26L71

Power KW : 141.7

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5

Overflow quantity

min. L/h : 145 Tolerance L/h : ← 20.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.00 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 11.00 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

٠ ۵

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

*NW after s.o.d. : -0.25

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

betw. rack trav.

mm : 21.00

and maximum rack

travel : 11.00 Difference * CS : 3.25

CRT ZERO POSITION	
Rack travel in mm Tolerance mm	: 12.10 : ← 0.05
BASIC SETTING	
Rated speed rpm	: 1250
Del. quantity cm3/1000 strokes	: 183.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000S.	: + 4.0
Spreed	
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0
Rated speed rpm	; 325
Rack travel in mm Tolerance mm Del. quantity	: -7.20 : +- 0.10
cm3/1000 strokes Tolerance	: 39.0
cm3/1000 strokes Check tolerance	: ← 2.0
cm3/1000s. Spreed	: ← 6.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP
GUIDE SLEEVE TRAVE	ī.
Rated speed rpm guide sleeve	: 1340
travel mm	: 9.%

Rated speed rpm guide sleeve	: 325
travel mm Tolerance mm	: 1.52 : + 0.20
Rated speed rpm guide sleeve	: 923
travel mm Tolerance mm	: 6.76 : + 0.25
Rated speed rpm guide sleeve	: 550
travel mm Tolerance mm	: 3.92 : ← 0.25
Rated speed rpm guide sleeve	: 1650
travel mm Tolerance mm	: 13.50 : + 0.50
GUIDE SLEEVE POSI	TION
control Lever position degree Rated speed rpm	: - 1 : 1430
Rack travel in man Tolerance man	: 11.10 : + 2.70
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	: 1250
hPa Del. quantity	: 1600
cm3/1000 strokes	: 183.0

FULL LOAD DELIVER	Y AT FUL	L LOAD STOP
Rated speed rpm	: 125	0
Aneroid pressure		
hPa	: 160	0
Del. quantity		
cm3/1000 strokes	: 18	3.0
Tolerance		
cm3/1000 strokes	: +-	1.0
Check tolerance		
cm3/1000s.	: +-	4.0
Spreed		
Tolerance		
cm3/1000 strokes	:	5.0
Check tolerance		
cm3/1000s.	:	9.0

CONTRO)L L	EVER
--------	------	------

control lever position degree : 296.0 tolerance degree : + 4.0

RATED SPEED -1.00

Rated speed rpm Tolerance 1/min	
rack travel mm Rated speed rpm Tolerance 1/min	
rack travel mm Tolerance mm Rated speed rpm	: + 0.55
LOW IDLE	
control lever position degree tolerance degree	: 241.0 : + 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 200
CRT mm min.	: < -5.80
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm	: 325 : > 5.80
TORQUE CONTROL Rated speed rpm	: 1250
Rated speed rpm rack travel mm Tolerance mm	: 650 : -2.10 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 350 : -3.25 : +- 0.25
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa Tolerance mm	: 1250 : 1600 : +- 0.10

Pressure hPa rack travel mm Tolerance mm	: -4.70 : + G.20	
MEASUREMENT		
Rated speed rpm	: 1250	
Pressure hPa rack travel mm Tolerance mm	: 240 : −3.40 : ← 0.20	
Pressure hPa rack travel mm Tolerance mm	: 520 : −1.20 : ← 0.05	
Start interlock		
Rated speed rpm Rated speed rpm	: > 175 : < 240	
Check speed 1/min	: > 155	
Check speed 1/min	: < 260	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure hPa	: 1600	
Rated speed rpm Del. quantity	: 650	
cm3/1000 strokes Tolerance	: 172.0	
cm3/1000 strokes Check tolerance	: ← 3.0	
cm3/1000s.	: + 6.0	
rack travel mm Tolerance mm	: -3.25 : + 0.25	
Aneroid pressure		
hPa Rated speed rpm	: - : 500	
hPa Rated speed rpm Del. quantity cm3/1000 strokes		
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 500	
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 500 : 120.0	

Rated speed rpm : 500

Rated speed rpm Del. quantity	:	100
cm3/1000 strokes Tolerance	:	113.0
cm3/1000 strokes	: +	- 10.0
Check tolerance cm3/1000s.	:+	- 14.0

Rated speed rpm	:	325
Rack travel in mm Tolerance mm Del. quantity		
244000	:	39.0
cm3/1000 strokes Check tolerance	: +	2.0
cm3/1000s. Spreed	: +-	6.0
Talerance cm3/1000 strokes Check tolerance	:	8.0
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15,12,97 Test oil : ISO 4113

Combination No. : 0 402 946 028

Injection pump

Pump designation : PES6P120A320RS8047 EP type number : 0 412 926 029

Governor

Governer design. : RQV275...1175PA1312

: -1K

Governer no. : 0 421 815 965

Cust. part No. : CCEP 5161 A 66-245

Customer-spec. information

Customer : RENAULT V.I. : MIDR 060226 M71 Motor

Power KW : 158.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance *C : +- 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. L/h : 140 Tolerance l/h : + 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.00 Tolerance mm : ← 0.05 Check

tolerance mm : + 0.10

Rack travel in mm : 11.00 Tolerance mm : ← 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

*NW after s.o.d. : -0.25 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

betw. rack trav.

: 21.00

and maximum rack

travel 11.00

Difference * CS	: 3.25	+ Tolerance mm : ← 0.15
		+
		Rated speed rpm : 275
COT JEDO DOCITION	1	guide sleeve : 0.98 Tolerance mm : + 0.20
CRT ZERO POSITION		travel mm : U.98
		folerance mm : + 0.20
Rack travel in mm		Rated speed rpm : 893
Tolerance mm	: ← 0.05	+ guide sleeve
		travel mm : 6.60 Tolerance mm : + 0.25
BASIC SETTING	· · · · · · · · · · · · · · · · · · ·	—
		Rated speed rpm : 560
Rated speed rpm	: 1175	- guide sleeve
		travel me : 4.01
Del. quantity		guide sleeve travel mm : 4.01 Tolerance mm : + 0.25
cm3/1000 strokes	: 273.0	+
		Rated speed rpm : 1650
Tolerance		guide sleeve
cm3/1000 strokes	: ← 1.0	travel mm : 13.50
		+ Tolerance mm : + 0.50
Check tolerance		 +
cm3/1000s.	: + 4.0	+
		+ GUIDE SLEEVE POSITION
Spreed		+
-		†
Tolerance	5.0	+ control lever
cm3/1000 strokes	: 5.0	position degree : - 1
Ol l . A . l		Rated speed rpm : 1420
Check tolerance	. 0.0	† Paul Assaul 1 assaul 12 20
cm3/1000s.	: 9.0	Rack travel in mm : 12.20
		ļ
Rated speed rpm	: 275	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm	-7.10	Rated speed rpm : 1175
Tolerance mm		Aneroid pressure
Del. quantity		1 hps 1600
cm3/1000 strokes		Del. quantity
Tolerance	7 72.0	cm3/1000 strokes : 273.0
cm3/1000 strokes	: ← 2.0	Tolerance
Check tolerance	,-	cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s.	; ← 6.0	+ Check tolerance
Spreed	. ••••	cm3/1000s. : +- 4.0
Tolerance		Spreed
cm3/1000 strokes	: 8.N	Tolerance
Check tolerance		- cm3/1000 strokes : 5.0
cm3/1000s.	: 12.0	Check tolerance
51827 10000.	. 12.0	- cm3/1000s. : 9.0
		+ 01107 100001
(B) SETTING OF IN	JECTION PUMP	}
WITH GOVERNOR		+
		CONTROL LEVER
CITIE CIECUE TRAV		
GUIDE SLEEVE TRAV	EL	control lever
Datad speed non	• 1270	+ position degree : 294.0
Rated speed rpm	. 12/0	tolerance degree : + 4.0
guide sleeve travel mma	. 0.70	DATES COLES
Travel Ma	; y.30	+ RATED SPEED

rack travel mm Rated speed rpm Tolerance 1/min Fack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: 1255 : ← 15 : −9.40 : 1431 : ← 5 : −12.90 : ← 0.50	+++++++++++++++++++++++++++++++++++++++	MEASUREMENT Rated speed rpm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 320 : -4.00 : + 0.20 : 560 : -2.40
LOW IDLE			Start interlock	
control lever position degree tolerance degree		+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Rated speed rpm Check speed 1/min Check	: < 240
Testing:		‡	speed 1/min	: < 260
Rated speed rpm rack travel mm Tolerance mm	: 275 : -7.10 : + 0.10	†	FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 200	Ŧ	Aneroid pressure	: 1600
CRT mm max. Rated speed rpm		+	Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 650 : 260.0
TORQUE CONTROL Rated speed rpm			cm3/1000 strokes Check tolerance cm3/1000s.	: + 6.0
Rated speed rpm rack travel mm Tolerance mm	: −1.75 : ← 0.10	† † †	rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm		‡	Aneroid pressure hPa Rated speed rpm Del. quantity	: 500
ANEROID/ALTITUDE COMPENSATOR TEST		‡	cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	
SETTING		Ŧ	cm3/1000s.	: - 4.0
Rated speed rpm Pressure hPa	: 1175 : 1600	Ī		
Rated speed rpm		‡	STARTING FUEL DEL	IVERY
Pressure hPa rack travel mm	: -	‡	Rated speed rpm Del. quantity	: 100
Tolerance mm		+	cm3/1000 strokes	: 87.0

MEASUREMENT	
Rated speed rpm	: 1175
Pressure hPa rack travel mm Tolerance mm	: 320 : −4.00 : ← 0.20
Pressure hPa rack travel mm Tolerance mm	: 560 : −2.40 : ← 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 175 : < 240
Check speed 1/min Check	: > 155
speed 1/min	: < 260
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	4/00
hPa Rated speed rpa	: 1600 : 650
Del. quantity cm3/1000 strokes Tolerance	: 260.0
cm3/1000 strokes Check tolerance	: ← 3.0
cm3/1000s.	: ← 6.0
rack travel mm Tolerance mm	: −3.00 : ← 0.25
Aneroid pressure	•
Rated speed rpm	500
Del. quantity cm3/1000 strokes	: 150.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000S.	: + 4.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100

Tolerance			
cm3/1000 strokes	:	+	10.0
Check tolerance			
cm3/1000s.	•	+-	14.0

01	IN	

Nated speed rpa	:	275
Rack travel in mm	:	-7.10
Tolerance mm	: +-	0.10
Del. quantity		
cm3/1000 strokes	:	45.0
Tolerance	•	
cm3/1000 strokes	: +-	2.0
Check tolerance	•	
cm3/1000s.	٠ +-	6.0
Spreed	•	0.0
Tolerance		
7/4000	•	8.0
	•	0.0
Check tolerance		4- 0
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 244 032

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1300MW132

: -1

Governer no. : 0 420 083 292

Cust. part No. : 0240741102

Customer—spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.60 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance -	1
cm3/1000 strokes : 5.0	Rated speed rpm : 1596
the root serones.	guide steeve
Check tolerance	travel mm : 12.00
cm3/1000s. : 8.0	Tolerance am + 0.25
. 0,0	1000100 0000
-	Rated speed rpm : 1690
•	guide steeve
Rated speed rpm : 300 -	travel mm : 13.50
	Tolerance mm : + 0.50
Rack travel in mm: 3.90	
Tolerance mm : + 0.10	
Del. quantity -	GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0 -	
Tolerance -	
cm3/1000 strokes : +- 2.0 -	control lever
Check tolerance	f position degree : VL
cm3/1000s. : +- 4.5	
Spreed -	control lever
Tolerance - cm3/1000 strokes : 2.0 -	position degree : 121
Check tolerance	Rated speed rpm : 1500
cm3/1000s. : 4.0 -	Rack travel in mam: 10.00
- 4.0	Tolerance mm : +- 2.00
**	L 2.00
(B) SETTING OF INJECTION PUMP -	
WITH GOVERNOR	FULL LOAD DELIVERY AT FULL LOAD STOP
-	
	Rated speed rpm : 1300
GUIDE SLEEVE TRAVEL	- Aneroid pressure
-	hPa : 1200
Rated speed rom : 1354 -	- Del. quantity
guide sleeve -	1 am7/1000 ahaalaa : 407.0
	cm3/1000 strokes : 123.0
travel mi : 7.77	Tolerance
	Tolerance : + 1.0
travel mm : 7.77 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 check tolerance cm3/1000s. : + 4.0 Spreed
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 6.91	Tolerance cm3/1000 strokes : + 1.0 check tolerance cm3/1000s. : + 4.0 Spreed Tolerance
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 8.0
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 6.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 8.0 CONTROL LEVER control lever
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 8.0 CONTROL LEVER control lever
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679 guide sleeve travel mm : 679 guide sleeve travel mm : 3.45	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.60
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679 guide sleeve travel mm : 679 guide sleeve travel mm : 3.45	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.60 Rated speed rpm : 1345
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.60
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679 guide sleeve travel mm : 679 guide sleeve travel mm : 3.45	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.60 Rated speed rpm : 1345
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679 guide sleeve travel mm : 3.45 Tolerance mm : + 0.25 Rated speed rpm : 3.45 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.60 Rated speed rpm : 1345 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679 guide sleeve travel mm : 3.45 Tolerance mm : + 0.25 Rated speed rpm : 3.45 Tolerance mm : + 0.25 Rated speed rpm : 3.45 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.60 Rated speed rpm : 1345 Tolerance 1/min : + 5
travel mm : 7.77 Tolerance mm : + 0.25 Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.25 Rated speed rpm : 1150 guide sleeve travel mm : 5.95 Tolerance mm : + 0.25 Rated speed rpm : 629 guide sleeve travel mm : 3.15 Tolerance mm : + 0.25 Rated speed rpm : 679 guide sleeve travel mm : 3.45 Tolerance mm : + 0.25 Rated speed rpm : 3.45 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.60 Rated speed rpm : 1345 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460

rack travel am Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 1550
LOW IDLE	
control lever position degree tolerance degree	: 71.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 4.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 3.90 : + 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.60 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.60 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.60 : ← 0.05
Rated speed rpm Pressure hPa Tolerance mm	: 500 : - 0.10
MEASUREMENT	
Rated speed rpm	: 500

600

: 2.00 : + 0.10

Pressure hPa rack travel mm Tolerance mm	: 350 : 0.50 : ← 0.10
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 200
Check speed 1/min Check	: > 80
speed 1/min	: < 220
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	: 1200
Rated speed rpm Del. quantity	: 600
cm3/1000 strokes Tolerance	: 121.0
cm3/1000 strokes	: ← 2.0
Check tolerance cm3/1000s. Spreed	: + 5.0
Tolerance cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Aneroid pressure	*
Rated speed rpm Del. quantity	500
cm3/1000 strokes Tolerance	: 67.0
cm3/1000 strokes Check tolerance	: +- 1.0
cm3/1000s.	: ← 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity cm3/1000 strokes	: 150.0
Tolerance cm3/1000 strokes	: - 5.0
Check tolerance cm3/1000s.	: ← 8.0

Pressure hPa rack travel mm Tolerance mm

Rated speed rpm	:		300
Rack travel in mm	:		3.90
TOTAL CALL	:	+-	0.10
Del. quantity cm3/1000 strokes	:		12.0
Tolerance	·		
cm3/1000 strokes	:	+-	2.0
Check tolerance cm3/1000s. Spreed	:	+-	4.5
Tolerance cm3/1000 strokes Check tolerance	:		2.0
cm3/1000s.	•		4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.12.97 Edition : ISO 4113 Test oil

Combination No. : 0 403 244 033

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1300MW132

Governer no. : 0 420 083 292

Cust. part No. : 0240748202

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance *C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 bar Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : **←** 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : \leftarrow 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 : +- 0.50

Tolerance Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.60

: +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

: **←** 4.0 cm3/1000s.

Spreed

Tolerance	+	
cm3/1000 strokes :	5.0	Rated speed rpm : 1596
Charl Aslana	+	guide sleeve
Check tolerance cm3/1000s. :	8.0	travel mm : 12.00
cm3/1000s. :	°.u I	Tolerance man : +- 0.25
****		Rated speed rpm : 1690
)	guide sleeve
Rated speed rpm : 30	0 +	travel mm : 13.50
Dool Annual Survey 2	<u> </u>	Tolerance mm : + 0.50
Rack travel in mm : 3 Tolerance mm : +- 0		
Del. quantity	.10	CHIDE CLECKE DOCUTION
	2.0 I	GUIDE SLEEVE POSITION
Tolerance	1	
cm3/1000 strokes : +-	2.0	control lever
Check tolerance	· +	position degree : VL
	4.5	
Spreed	+	control lever
Tolerance	.	position degree : 121
cm3/1000 strokes : 7	2.0	Rated speed rpm : 1500
	4.0 I	Rack travel in mm : 10.00
	1	Tolerance mm : +- 2.00
	+	
(B) SETTING OF INJECTION	PUMP +	
WITH GOVERNOR	†	FULL LOAD DELIVERY AT FULL LOAD STOP
···		Rated speed rpm : 1300
GUIDE SLEEVE TRAVEL	I	Aneroid pressure
	+	hPa : 1200
Rated speed rpm : 1354	+ +	Del. quantity
guide sleeve	+	cm3/1000 strokes : 123.0
	.77	Tolerance
Tolerance mm : + 0.	.23	cm3/1000 strokes : + 1.0
Rated speed rpm : 300	, I	Check tolerance cm3/1000S. : +- 4.0
guide sleeve	Ţ	Spreed
	.91	Tolerance
Tolerance mm : + 0.		cm3/1000 strokes : 5.0
	+	Check tolerance
Rated speed rpm : 1150	†	cm3/1000s. : 8.0
guide sleeve travel mm : 5.	95	
Tolerance ma : +- 0.		
Toter direct insu	I	CONTROL LEVER
Rated speed rpm : 629)	Control of the Contro
guide sleeve	+	control lever
	15	position degree : 116.0
Tolerance mm : + 0.	25	tolerance degree : +- 4.0
Rated speed rpm : 679	ì	RATED SPEED
guide sleeve	I	rack travel mm : 12.60
	45	Rated speed rpm : 1345
	25	Tolerance 1/min : + 5
	+	
Rated speed rpm : 820	†	rack travel mm : 4.00
guide sleeve	no †	Rated speed rpm : 1460
travel mm : 4. Tolerance mm : + 0.		Tolerance 1/min : +- 15
TO COT CRITICO MER	-	

rack travel mm Tolerance mm Rated speed rpm	: ← 0.50
LOW IDLE	
control lever position degree tolerance degree	: 71.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 4.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 3.90 : ← 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.60 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.60 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.60 : + 0.05
Rated speed rpm Pressure hPa Tolerance mm	: 500 : - : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 600 : 2.00 : ← 0.10

Pressure hPa rack travel mm Tolerance mm	: 350 : 0.50 : + 0.10
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 200
Check speed 1/min Check	: > 80
speed 1/min	: < 220
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	: 1200
Rated speed rpm Del. quantity	
cm3/1000 strokes Tolerance	: 121.0
cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000s.	: + 5.0
Spreed Tolerance	
cm3/1000 strokes Check tolerance	: 6.0
cm3/1000s.	: 9.0
Aneroid pressure	
hPa Rated speed rpm	: - : 500
Del. quantity cm3/1000 strokes	: 67.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: ← 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity cm3/1000 strokes	: 150.0
Tolerance cm3/1000 strokes	: ← 5.0
Check tolerance cm3/1000s.	: +- 8.0

Rated speed rpm	:		300
Rack travel in man	:		3.90
Tolerance mm	-	+-	0.10
Pel. quantity			
cm3/1000 strokes	:		12.0
Tolerance			
cm3/1000 strokes	•	+-	2.0
Check tolerance			
cm3/1000s.	:	+	4.5
Spreed			
Tolerance	_		2.0
cm3/1000 strokes Check tolerance	•		2.0
cm3/1000s.			4.0
CMS/ 10003.	•		4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.12.97 : ISO 4113

Combination No. : 0 403 244 034

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

: -3

: 0 420 083 296 Governer no.

Cust. part No. : 0240740702

Customer spec. information : MB-NFZ Customer Motor : 0M364LA

Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : +-Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 : + 1.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : **←** 0.50

Check

tolerance mm : +- 0.10

Rack travel in mm: 20.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.15

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.: + 3.0

Spreed

Talana	
Tolerance + cm3/1000 strokes : 4.5	Dated and an address of ACO/
CHO/ 1000 Strokes : 4.5	Rated speed rpm : 1596
Check tolerance	guide sleeve
cm3/1000s. : 7.0	travel mm : 12.00 Tolerance mm : +- 0.25
I	roterance man : - 0.23
	Rated speed rpm : 1690
I	guide sleeve
Rated speed rpm : 300	travel mm : 13.50
	Tolerance mm : + 0.50
Rack travel in mm: 4.00	TOTAL MINE MAN . TO.50
Tolerance mm : + 0.10	
Del. quantity	GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0	
Tolerance	
cm3/1000 strokes : + 2.0	control lever
Check tolerance	position degree : 120
cm3/1000s. : + 4.5	Rated speed rpm : 1500
Spreed	
Tolerance	Rack travel in mm : 10.00
cm3/1000 strokes : 2.0	Tolerance mm : + 2.00
Check tolerance	
cm3/1000s. : 4.0	FIG. 1.040 DELEVIENCE AT THE LAND STORY
†	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF INJECTION PUMP	Pated aread man 1700
WITH GOVERNOR	Rated speed rpm : 1300 Aneroid pressure
WITH GOVENION	hPa : 700
	Del. quantity
GUIDE SLEEVE TRAVEL	cm3/1000 strokes : 87.0
don't occur notice	Tolerance
Rated speed rpm : 1345	cm3/1000 strokes : +- 1.0
guide sleeve	Check tolerance
travel mm : 7.64	cm3/1000s. : +- 3.0
Tolerance mm : + 0.25	Spreed
+	Tolerance
Rated speed rpm : 300 +	cm3/1000 strokes : 4.5
guide sleeve	Check tolerance
travel mm : 0.91	cm3/1000s. : 7.0
Tolerance mm : + 0.25	
+	
Rated speed rpm : 1140	
guide steeve	CONTROL LEVER
travel mm : 5.88	control loven
Tolerance mm : + 0.25	control lever
Rated speed rpm : 629	position degree : 112.0 tolerance degree : +- 4.0
guide sleeve	toterance degree : +- 4.0
travel mm : 3.15	RATED SPEED
Tolerance mm : + 0.25	rack travel mm : 10.10
	Rated speed rpm : 1345
Rated speed rpm : 679	Tolerance 1/min : +- 5
guide sleeve	
travel mm : 3.53	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1435
+	Tolerance 1/min : + 15
Rated speed rpm : 800	
guide sleeve +	rack travel mm : 0.50
4 00	
travel mm : 4.00 +	Tolerance mm : + 0.50
Tolerance mm : 4.00 +	

control lever

position degree : 70.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. :> 4.50

Testing:

Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1300 rack travel mm : 11.15 Tolerance mm : + 0.05

Rated speed rpm : 750
rack travel mm : 11.15
Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 11.15
Tolerance mm : +- 0.05

Rated speed rpm : 500
Pressure hPa : Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 230 rack travel mm : 0.20 Tolerance mm : + 0.10

Start interlock

Rated speed rpm :> 100 Rated speed rpm :< 200

Check

speed 1/min : > 80

Check

speed 1/min : < 220

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 700 Rated speed rpm : 750

Del. quantity

cm3/1000 strokes : 79.0

Tolerance

cm3/1000 strokes : + 1.5 Check tolerance

cm3/1000s. : + 4.0

Spreed Tolerance

cm3/1000 strokes : 6.0 Check tolerance

cm3/1000s. : 9.0

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : +- 1.0 Check tolerance

cm3/1000s. : +- 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 125.0

Tolerance

cm3/1000 strokes : \leftarrow 5.0

Check tolerance

cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 4.00 Tolerance mm: + 0.10

Del. quantity cm3/1000 strokes Tolerance	:	12.0
cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s.	: +-	4.5
Spreed Tolerance		
cm3/1000 strokes Check tolerance	:	2.0
cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) 9400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 244 035

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

: -3

Governer no. : 0 420 083 296

Cust. part No. : 0240740802

Customer—spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : +- 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270Tolerance : +- 0.50

Check

tolerance *NW : \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.15

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : + 3.0

Tolerance +	
cm3/1000 strokes : 4.5	Rated speed rpm : 1596
1	guide steeve
Check tolerance	travel mm : 12.00
cm3/1000s. : 7.0	Tolerance mm : +- 0.25
1.000	Toterance mm : Total
	Data dans a lana 4400
†	Rated speed rpm : 1690
†	guide sleeve
Rated speed rpm : 300	travel mm : 13.50
+	Tolerance mm : +- 0.50
Rack travel in mm: 4.00	
Tolerance mm : + 0.10 +	
Del. quantity	GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0	
Tolerance	
cm3/1000 strokes : + 2.0	control lever
Check tolerance	position degree : 120
cm3/1000s. : + 4.5	Rated speed rpm : 1500
Spreed	variou specu (MR (1500
Tolerance	Book troval in my 40 00
1 - 1	Rack travel in mm : 10.00
cm3/1000 strokes : 2.0	Tolerance mm : +- 2.00
Check tolerance	
cm3/1000s. : 4.0	
+	FULL LOAD DELIVERY AT FULL LOAD STOP
+	
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1300
WITH GOVERNOR +	Aneroid pressure
 	hPa : 700
	Del. quantity
GUIDE SLEEVE TRAVEL	cm3/1000 strokes : 87.0
	Tolerance
Rated speed rpm : 1345	cm3/1000 strokes : +- 1.0
guide sleeve	
	Check tolerance
	cm3/1000s. : $+$ 3.0
Tolerance mm : + 0.25	Spreed
*	Tolerance
Rated speed rpm : 300	cm3/1000 strokes : 4.5
guide sleeve	Check tolerance
travel mm : 0.91	cm3/1000s. : 7.0
Tolerance mm : + 0.25	
 	
Rated speed rpm : 1140	
guide sleeve	CONTROL LEVER
travel mm : 5.88	
Tolerance mm : + 0.25	control lever
	position degree : 112.0
Rated speed rpm : 629	tolerance degree : + 4.0
guide sleeve	toterance degree . For 4.0
travel mm : 3.15	RATED SPEED
Tolerance mm : + 0.25	
Toterance min . + 0.25	rack travel mm : 10.10
Detect aread area (70)	Rated speed rpm : 1345
Rated speed rpm : 679	Tolerance 1/min : +- 5
guide sleeve	
travel mm : 3.53 +	rack travel mm : 4.00
Tolerance mm : + 0.25 +	Rated speed rpm : 1435
<u> </u>	Tolerance 1/min : + 15
Rated speed rpm : 800	
guide sleeve	rack travel mm : 0.50
travel mm : 4.00	Tolerance mm : +- 0.50
Tolerance mm : + 0.25	Rated speed rpm : 1550
The second secon	טעעו וואן מסטקט מסטביי
~10	

LOW IDLE

control lever

position degree : 70.0 tolerance degree : +-4.0

Setting point w/out bumper spring

Rated speed rpm 200 :

CRT mm min. : > 4.50

Testing:

Rated speed rpm 300 rack travel mm 4.00 Tolerance mm : + 0.10

TORQUE CONTROL

1300 Rated speed rpm rack travel mm 11.15 : +- 0.05 Tolerance mm

750 Rated speed rom 11.15 rack travel mm Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 700 Pressure hPa rack travel mm 11.15 Tolerance mm : ← 0.05

500 Rated speed rpm Pressure hPa Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm 500

230 Pressure hPa rack travel mm 0.20 : + 0.10Tolerance mm

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 200

Check

speed 1/min : > 80 Check speed 1/min : < 220

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 700 Rated speed rpm 750

Del. quantity

cm3/1000 strokes : 79.0 Tolerance

cm3/1000 strokes : \leftarrow 1.5

Check tolerance cm3/1000s. 4.0

Spreed Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 9.0

Aneroid pressure

hPa Rated speed rpm 500

Del. quantity cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. 3.0 : +-

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity

cm3/1000 strokes : 125.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s.8.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm : 4.00 Tolerance mm 0.10

Del. quantity cm3/1000 strokes	:	12.0
Tolerance cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000s. Spreed	: +-	4.5
Tolerance cm3/1000 strokes	:	2.0
Check tolerance cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 244 036

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

6overner design. : RQV300...1300MW132

: -5

6overner no. : 0 420 083 308

Cust. part No. : 0240740902

Customer—spec. information Customer : MB-NFZ Motor : 0M364LA

Motor : OM364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C : 40
Tolerance *C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.15 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Tolerance +	
cn3/1000 strokes : 4.5	Rated speed rpm : 1596
	guide sleeve
Check tolerance	travel mm : 12.00
cm3/1000s. : 7.0	Tolerance mm : +- 0.25
	Total de la
***************************************	Rated speed rpm : 1690
<u> 1</u>	guide sleeve
Rated speed rpm : 300	travel mm : 13.50
300	Tolerance mm : +- 0.50
Rack travel in mm: 4.00	Total diffee task
Tolerance mm : ← 0.10	
Del, quantity	GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0	30175 355545 1 00111014
Tolerance	
cm3/1000 strokes : +- 2.0	control lever
Check tolerance	position degree : 120
cm3/1000s. : + 4.5	Rated speed rpm : 1500
Spreed	······································
Tolerance	Rack travel in mm : 10.00
cm3/1000 strokes : 2.0	Tolerance mm : +- 2.00
Check tolerance	
cm3/1000s. : 4.0	
1	FULL LOAD DELIVERY AT FULL LOAD STOP
1	
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1300
WITH GOVERNOR +	Aneroid pressure
+	hPa : 700
	Del. quantity
GUIDE SLEEVE TRAVEL	cm3/1000 strokes : 87.0
+	Tolerance
Rated speed rpm : 1353 +	cm3/1000 strokes : +- 1.0
guide sleeve	Check tolerance
travel nm : 7.76	$cm3/1000s.$: \leftarrow 3.0
Tolerance mn : + 0.25	Spreed
.	Tolerance
Rated speed rpm : 300 +	cm3/1000 strokes : 4.5
guide sleeve	Check tolerance
travel mm : 0.91	cm3/1000s. : 7.0
Tolerance mm : + 0.25	
Peter annual man a 44/0	
Rated speed rpm : 1140	AANTON LEID
guide sleeve	CONTROL LEVER
travel mm : 5.88	combined discount
Tolerance mm : + 0.25	control lever
Peter annual man a 420	position degree : 112.0
Rated speed rpm : 629	tolerance degree : +- 4.0
guide sleeve	DATES OPEN
travel mm : 3.15 Tolerance mm : + 0.25	RATED SPEED
rocerance min : += 0.25	rack travel mm : 10.10
Rated speed rpm : 679	Rated speed rpm : 1345
	Tolerance 1/min : +- 5
guide sleeve + travel mm : 3.53 +	nnot that of me
Tolerance mm : +- 0.25	rack travel mm : 4.00
Total carine intil	Rated speed rpm : 1435 Tolerance 1/min : +- 15
Rated speed rpm : 800	TOLET OTHER THANKS TO THE TOTAL TOLET OTHER THANKS
guide steeve	rack travel mm : 0.50
travel mm : 4.00	Tolerance mm : + 0.50
Tolerance mm : + 0.25	Rated speed rpm : 1550
T Committee in the contract of	ndrea speed this . 1770

LOW IDLE

control lever

position degree : 70.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. : > 4.50

Testing:

Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1300 rack travel mm : 11.15 Tolerance mm : ← 0.05

Rated speed rpm : 750 rack travel mm : 11.15 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 11.15
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 230 rack travel mm : 0.20 Tolerance mm : + 0.10

Start interlock

Rated speed rpm :> 100 Rated speed rpm :< 200

Check

speed 1/min :> 80

Check

speed 1/min : < 220

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 700 Rated speed rpm : 750

Del. quantity

cm3/1000 strokes : 79.0

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : + 4.0 Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. : 9.0

Aneroid pressure

hPa : Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity cm3/1000 strokes : 125.0

Tolerance

cm3/1000 strokes : +- 5.0

Check tolerance

cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm : 4.00 Tolerance mm : + 0.10

Del. quantity cm3/1000 strokes	:	12.0	
Tolerance cm3/1000 strokes	: +-	2.0	
Check tolerance cm3/1000s.	: +-	4.5	
Spreed Tolerance		2.0	
cm3/1000 strokes Check tolerance	:	2.0	
cm3/1000s.	:	4.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 244 036A

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

Governer no. : 0 420 083 308

Cust. part No. : 0240740902

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA

Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar 208.5 Tolerance bar : **←** 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 4.55 Tolerance mm : +- 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm : 20.00 Tolerance mm : **←** 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1270

Rack travel in mm: 11.15 Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.3.0 : +--

Tolerance .	+
cm3/1000 strokes : 4.5	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. 7.0	
, , , , , , , , , , , , , , , , , , ,	control lever
•	position degree : VL
Rated speed rpm : 300	control lever
Rack travel in mm : 4.00	position degree : 115
Rack travel in mm : 4.00 - Tolerance mm : + 0.10 -	Rated speed rpm : 1500
Del. quantity	Rack travel in mm : 10.00
cm3/1000 strokes : 12.0	+ Rack travel in mm : 10.00 + Tolerance mm : +- 2.00
Tolerance	
cm3/1000 strokes : + 2.0	
Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : + 4.5	TOLL FOUND RELITATIVE ME LOUIS STOP
Spreed -	Rated speed rpm : 1270
Tolerance	Aneroid pressure
cm3/1000 strokes : 2.0	hPa : 700
Check tolerance	Del. quantity
cm3/1000s. : 4.0	cm3/1000 strokes : 87.0
-	Tolerance
<u>.</u>	cm3/1000 strokes : +- 1.0
(B) SETTING OF INJECTION PUMP	Check tolerance
WITH GOVERNOR -	+ cm3/1000s. : +- 3.0
•	- Spreed
	Tolerance
GUIDE SLEEVE TRAVEL	cm3/1000 strokes : 4.5
Dahad award non . 4757	Check tolerance
Rated speed rpm : 1353	- cm3/1000s. : 7.0
guide sleeve - travel mm : 7.02 -	
travel mm : 7.02 - Tolerance mm : + 0.15 -	
Total arice man . Total arich man	CONTROL LEVER
Rated speed rpm : 300	CONTROL LEVER
guide sleeve	- control lever
travel mm : 0.91	position degree : 111.0
Tolerance mm : + 0.20	
	tolerance degree : +- 4.0
Rated speed rpm : 1090	
Rated speed rpm : 1090 guide sleeve	tolerance degree : +- 4.0 RATED SPEED rack travel mm : 10.10
Rated speed rpm : 1090 guide sleeve travel mm : 5.21	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310
Rated speed rpm : 1090 guide sleeve	tolerance degree : +- 4.0 RATED SPEED rack travel mm : 10.10
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve travel mm : 3.98 Tolerance mm : + 0.25	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve travel mm : 3.98 Tolerance mm : + 0.25 Rated speed rpm : 1759	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve travel mm : 3.98 Tolerance mm : + 0.25 Rated speed rpm : 1759 guide sleeve	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve travel mm : 3.98 Tolerance mm : + 0.25 Rated speed rpm : 1759 guide sleeve travel mm : 12.00	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve travel mm : 3.98 Tolerance mm : + 0.25 Rated speed rpm : 1759 guide sleeve	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve travel mm : 3.98 Tolerance mm : + 0.25 Rated speed rpm : 1759 guide sleeve travel mm : 12.00	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 1090 guide sleeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide sleeve travel mm : 3.98 Tolerance mm : + 0.25 Rated speed rpm : 1759 guide sleeve travel mm : 12.00 Tolerance mm : + 0.25 Rated speed rpm : 1870 guide sleeve	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 1090 guide steeve travel mm : 5.21 Tolerance mm : + 0.25 Rated speed rpm : 790 guide steeve travel mm : 3.98 Tolerance mm : + 0.25 Rated speed rpm : 1759 guide steeve travel mm : 12.00 Tolerance mm : + 0.25 Rated speed rpm : 1870	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.10 Rated speed rpm : 1310 Tolerance 1/min : + 10 rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1550

control lever position degree tolerance degree	: 74.0 : + 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 4.70
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 4.00 : + 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1270 : 11.15 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.15 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 11.15 : ← 0.05
Rated speed rpm Pressure hPa Tolerance mm	: 500 : - : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 230 : 0.20 : + 0.10
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 200

Check speed 1/min	: < 220
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 700 : 750
cm3/1000 strokes Tolerance	: 79.0
cm3/1000 strokes	: +- 1.5
Check tolerance cm3/1000S. Spreed	: +- 4.0
Tolerance cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Aneroid pressure hPa Rated speed rpm	: - : 500
Del. quantity cm3/1000 strokes	: 67.0
Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: +- 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity cm3/1000 strokes	: 125.0
Tolerance cm3/1000 strokes	: + 5.0
Check tolerance cm3/1000s.	: + 8.0
LOW IDLE	
Rated speed rpm	: 300
Rack travel in mom Tolerance mom Del. quantity	: 4.00 : + 0.10
cm3/1000 strokes Tolerance	: 12.0
	. 2.0
cm3/1000 strokes Check tolerance	: +- 2.0

Check

speed 1/min :> 80

Spreed
Tolerance
cm3/1000 strokes : 2.0

Check tolerance cm3/1000s.

: 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.12.97 : ISO 4113

Combination No. : 0 403 244 038

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1200MW132

: -7

Governer no.

: 0 420 083 312

Cust. part No. : 0250748302

Customer-spec. information

Customer : MB-NFZ

Mator

: 0M364LA

Power KW

: 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance *C

: +-2.0

Overflow valve

: 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter :

3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.00

Tolerance mm

: + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.15

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: + 3.0

Tolerance cm3/1000 strokes : 4.5	†
	GUIDE SLEEVE POSIT N
Check tolerance cm3/1000s. : 7.0	†
	+ rantrol lever + position degree : 121
Rated speed rpm : 300	Rated speed rpm : 1450
Rack travel in man: 4.00	+ Rack travel in mm : 11.00 + Tolerance mm : + 2.00
Tolerance mm : +- 0.10 Del. quantity	I
cm3/1000 strokes : 12.0 Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 2.0 Check tolerance	Rated speed rpm : 1200
cm3/1000s. : +- 4.5	+ Aneroid pressure + hPa : 700
Spreed Tolerance	+ Del. quantity + cm3/1000 strokes : 87.0
cm3/1000 strokes : 2.0 Check tolerance	+ Tolerance + cm3/1000 strokes : +- 1.0
cm3/1000s. : 4.0	+ Check tolerance + cm3/1000s. : + 3.0
(B) SETTING OF INJECTION PUMP	+ Spreed + Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : 4.5 + Check tolerance
GUIDE SLEEVE TRAVEL	+ cm3/1000s. : 7.0
Rated speed rpm : 1255	<u> </u>
guide sleeve	+ CONTROL LEVER
travel mm : 7.93 Tolerance mm : + 0.25	t control lever
Toter ance him . • 0.25	position degree : 114.0
Rated speed rpm : 300 guide sleeve	tolerance degree : + 4.0
travel mm : 0.92	+ RATED SPEED
Tolerance mm : + 0.25	+ rack travel mm : 10.15
Rated speed rpm : 671	+ Rated speed rpm : 1245 + Tolerance 1/min : + 5
guide sleeve travel mm : 3.58	†
Tolerance mm : + 0.25	+ rack travel mm : 4.00 + Rated speed rpm : 1355
	+ Tolerance 1/min : + 15
Rated speed rpm : 721 guide sleeve	+ rack travel mm : 0.50
travel mm : 4.06	+ Tolerance mm : + 0.50
Tolerance mm : + 0.25	Rated speed rpm : 1450
Rated speed rpm : 970 guide sleeve	‡
travel mm : 5.51	+
Tolerance mma : +- 0.25	LOW IDLE
Rated speed rpm : 1690 guide sleeve	t control lever
travel mm : 13.50	position degree : 72.0
Tolerance mm : + 0.50	tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. :> 4.50

Testing:

Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1200 rack travel mm : 11.15 Tolerance mm : + 0.05

Rated speed rpm : 750 rack travel mm : 11.15 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 11.15
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 230 rack travel mm : 0.20 Tolerance mm : + 0.10

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 200

Check

speed 1/min :> 80 Check

speed 1/min : < 220

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	700
Rated speed rpm	:	750
Del. quantity		
cm3/1000 strokes	:	79.0
Tolerance		
cm3/1000 strokes	: +-	- 1.5
Check tolerance		
cm3/1000s.	: +	4.0
Spreed		
Tolerance		
cm3/1000 strokes	:	6.0
Chack talaranaa		

Check tolerance cm3/1000s. : 9.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 67.0
Tolerance

cm3/1000 strokes : + 1.0 Check tolerance

cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 125.0
Tolerance
cm3/1000 strokes : + 5.0
Check tolerance
cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm : 4.00

Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : Tolerance cm3/1000 strokes : +-

cm3/1000 strokes : +- 2.0
Check tolerance
cm3/1000s. : +- 4.5

12.0

2.0

4.0

Spreed Tolerance

cm3/1000 strokes :

Check tolerance cm3/1000s. :

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15,12,97 : ISO 4113

Combination No. : 0 403 244 040

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

: 0 413 204 017 EP type number

Governor

Governer design. : RQV300...1200MW132

: 0 420 083 313 Governer no.

: 0250748502 Cust, part No.

Customer-spec. information Customer : MB-NFZ

: 0M364LA Motor Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temo. °C 40 Tolerance °C : +- 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : : + 1.0 Tolerance bar

4.55 Prestroke mm Tolerance mm : **←** 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : **←** 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 13.90 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +-4.0

Tolerance		†
cm3/1000 strokes	: 5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 8.0	‡
		the control lever
		+ position degree : 121
Rated speed rpm	: 300	+ Rated speed rpm : 1450
		Rack travel in mm: 10.00
Rack travel in mm Tolerance mm		† Tolerance mm : + 2.00
Del. quantity	: + 0.10	<u> </u>
cm3/1000 strokes	: 12.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes		Bahad awad a war 1000
Check tolerance	: — 2.0	+ Rated speed rpm : 1200 + Aneroid pressure
cm3/1000s.	: +- 4.5	+ hPa : 1400
Spreed		Del. quantity
Tolerance cm3/1000 strokes	: 2.0	+ cm3/1000 strokes : 126.0 + Tolerance
Check tolerance	. 2.0	+ cm3/1000 strokes : +- 1.0
cm3/1000s.	: 4.0	+ Check tolerance
,		cm3/1000s. : +- 4.0
(B) SETTING OF IN	JECTION PUMP	+ Spreed + Tolerance
WITH GOVERNOR		- cm3/1000 strokes : 5.0
		theck tolerance
GUIDE SLEEVE TRAV	FI	± cm3/1000s. : 8.0
		4
Rated speed rpm	: 1255	
guide sleeve travel mm	: 7.93	+ CONTROL LEVER
Tolerance mm		- control lever
		position degree : 115.0
Rated speed rpm guide sleeve	: 300	tolerance degree : +- 4.0
travel mm	: 0.92	RATED SPEED
Tolerance mm	: ← 0.25	rack travel mm : 12.90
Dated cased are	. 471	Rated speed rpm : 1245
Rated speed rpm guide sleeve	: 671	+ Tolerance 1/min : +- 5
travel mm	: 3.58	rack travel mm : 4.00
Tolerance mm	: +- 0.25	Rated speed rpm : 1405
Rated speed rpm	: 721	+ Tolerance 1/min : +- 15
guide sleeve		rack travel mm : 0.50
travel mm	: 4.06	+ Tolerance mm : + 0.50
Tolerance mm	: + 0.25	Rated speed rpm : 1500
Rated speed rpm	: 970	+
guide sleeve		+
travel mm Tolerance mm	: 5.51 : + 0.25	I OU TOLE
। अस्याद्यास्य । स्त्रा	· - 0.0	+ LOW IDLE
Rated speed rpm	: 1690	+
guide sleeve	. 17 50	+ control lever
travel mm Tolerance mm	: 13.50 : + 0.50	<pre>position degree : 75.0 tolerance degree : +- 4.0</pre>
TO COLORIUS SMI	• • •••	1 Local diluc degree . T 4.0

Setting point w/o	out bumper spri	ng ‡	Check speed 1/min	; < 220
Rated speed rpm CRT mm min.		‡	FUEL DELIVERY CHA	ARACTERISTICS
Testing:	. > 4.50	Ŧ	Aneroid pressure	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 3.90 : ← 0.10	+	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1200 : 13.90 : ← 0.05	+	cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: +- 5.0
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.90 : ← 0.10	†	cm3/1000 strokes Check tolerance cm3/1000s.	
ANEROID/ALTITUDE COMPENSATOR TEST			Aneroid pressure hPa Rated speed rpm Del. quantity	
SETTING		Ī	cm3/1000 strokes Tolerance cm3/1000 strokes	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1400 : 13.90		Check tolerance cm3/1000s.	
Rated speed rpm Pressure hPa	: 500	Ŧ	STARTING FUEL DEL	IVERY
Tolerance mm	: ← 0.10	<u> </u>	Rated speed rpm Del. quantity	: 100
MEASUREMENT		‡	cm3/1000 strokes Tolerance	: 150.0
Rated speed rpm	: 500	‡	cm3/1000 strokes Check tolerance	: ← 5.0
Pressure hPa rack travel mm Tolerance mm	: 600 : 2.00 : + 0.10	‡	cm3/1000s.	: +- 8.0
Pressure hPa rack travel mm Tolerance mm	: 350 : 0.50 : + 0.10	+	LOW IDLE	
Charles Saharis		+	Rated speed rpm	
Start interlock Rated speed rpm		‡	Rack travel in mm Tolerance mm Del. quantity	: ← 0.10
Rated speed rpm	: < 200	‡	cm3/1000 strokes Tolerance	
Check speed 1/min	: > 80	‡	cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.0 : + 4.5

Spreed

Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 244 041

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1200MW132

: -8

Governer no. : 0 420 083 313

Cust. part No. : 0250748602

Customer—spec. information
Customer : MB-NFZ
Motor : OM364LA
Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270
Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 13.90 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Tolorope	•	
Tolerance	+	
cm3/1000 strokes	: 5.0 	
	1	GUIDE SLEEVE POSITION
Check tolerance		
cm3/1000s.	: 8.0	
	1	control lever
		position degree : 121
	1	Rated speed rpm : 1450
Rated speed rpm	: 300	nated speed (pill : 1450
Mateu speed rpm		Rack travel in mm : 10.00
Rack travel in mm	: 3.90	Tolerance min : +- 2.00
Tolerance mm		Toterance min . The 2.00
Del. quantity	· - 0.10	
cm3/1000 strokes	: 12.0	FULL LOAD DELTUEDY AT FULL LOAD CTOD
Tolerance	: 12.0	FULL LOAD DELIVERY AT FULL LOAD STOP
	: + 2.0	Dated annual man 4200
cm3/1000 strokes	: + 2.0	Rated speed rpm : 1200
Check tolerance	T	Aneroid pressure
cm3/1000s.	: ← 4.5 †	hPa : 1400
Spreed	†	Del. quantity
Tolerance	†	cm3/1000 strokes : 126.0
cm3/1000 strokes	: 2.0	Tolerance
Check tolerance	t	cm3/1000 strokes : ← 1.0
cm3/1000s.	: 4.0	Check tolerance
	†	$cm3/1000s$, : \leftarrow 4.0
45		Spreed
(B) SETTING OF IN	JECTION PUMP	Tolerance
WITH GOVERNOR	†	cm3/1000 strokes : 5.0
	†	Check tolerance
		cm3/1000s. : 8.0
GUIDE SLEEVE TRAVI	EL †	
	+	
Rated speed rpm	: 1255	
guide sleeve	+	CONTROL LEVER
travel mm	: 7.93 +	
Tolerance mm	: + 0.25 +	control lever
	+	position degree : 115.0
Rated speed rpm	: 300 +	de leneman de muse e l / O
guide sleeve		tolerance degree : +- 4.0
	+	
travel mm	: 0.92	RATED SPEED
travel mm Tolerance mm	+	RATED SPEED : 12.90
Tolerance mm	: 0.92 : ← 0.25	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245
Tolerance mm Rated speed rpm	: 0.92	RATED SPEED : 12.90
Tolerance man Rated speed rpm guide sleeve	: 0.92 : + 0.25 : 671	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5
Tolerance mm Rated speed rpm	: 0.92 : + 0.25 : 671 : 3.58	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00
Tolerance man Rated speed rpm guide sleeve	: 0.92 : + 0.25 : 671	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1405
Rated speed rpm guide sleeve travel mm Tolerance mm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00
Tolerance man Rated speed rpm guide sleeve travel man	: 0.92 : + 0.25 : 671 : 3.58	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve travel mm Tolerance mm	: 0.92 : ← 0.25 : 671 : 3.58 : ← 0.25 : 721	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : +- 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm	: 0.92 : → 0.25 : 671 : 3.58 : → 0.25 : 721 : 4.06	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 0.92 : ← 0.25 : 671 : 3.58 : ← 0.25 : 721	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm guide sleeve travel rpm guide sleeve travel mm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm guide sleeve travel rpm guide sleeve travel mm	: 0.92 : → 0.25 : 671 : 3.58 : → 0.25 : 721 : 4.06	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25 : 970	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide steeve travel mm Tolerance mm Rated speed rpm guide steeve travel mm Tolerance mm Rated speed rpm guide steeve travel mm Tolerance mm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25 : 970	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25 : 970 : 5.51	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1500
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25 : 970 : 5.51	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1500
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25 : 970 : 5.51 : + 0.25	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1500
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25 : 970 : 5.51 : + 0.25 : 1690	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 0.92 : + 0.25 : 671 : 3.58 : + 0.25 : 721 : 4.06 : + 0.25 : 970 : 5.51 : + 0.25	RATED SPEED rack travel mm : 12.90 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1405 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever

Setting point w/c	out bumper spring	+ Ch
Rated speed rpm	: 200	‡ –
CRT mm min.	: > 4.50	+ FU
Testing:		† An
Rated speed rpm rack travel mm Tolerance mm	: 300 : 3.90 : ← 0.10	hP. Ra De cm
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1200 : 13.90 : + 0.05	Cm Ch Cm Sp To
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.90 : ← 0.10	Ch.
ANEROID/ALTITUDE COMPENSATOR TEST		+ An + hP + Ra + De
SETTING		+ cm + To
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1400 : 13.90 : ← 0.05	Ch cm
Rated speed rpm Pressure hPa Tolerance mm	: 500 : - : + 0.10	ST.
MEASUREMENT		- cm
Rated speed rpm	: 500	+ cm
Pressure hPa rack travel mm Tolerance mm	: 600 : 2.00 : + 0.10	cm
Pressure hPa rack travel mm Tolerance mm	: 350 : 0.50 : + 0.10	L.01
Start interlock		+ Ra
Rated speed rpm Rated speed rpm	: > 100 : < 200	+ To + De - cm
Check speed 1/min	: > 80	- cm Che

Check	
speed 1/min	: < 220
CUEL DEL TUEDY CILA	DA 0750707700
FUEL DELIVERY CHA	RACIERISTICS
Aponoid procesure	
Aneroid pressure hPa	: 1400
Rated speed rpm	: 600
Del. quantity	. 000
cm3/1000 strokes	: 126.0
Tolerance	. 120.0
cm3/1000 strokes	: ← 2.0
Check tolerance	. 2.0
cm3/1000s.	: +- 5.0
Spreed	
Tolerance	
cm3/1000 strokes	: 6.0
Check tolerance	. -
cm3/1000s.	: 9.0
Aneroid pressure	
hPa	-
Rated speed rpm	: 500
Del. quantity	
cm3/1000 strokes	: 67.0
Tolerance	
cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: +- 3.0
CM3/10003.	: 3.0
	
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity	
cm3/1000 strokes	: 150.0
Tolerance	
cm3/1000 strokes	: ← 5.0
Check tolerance	
cm3/1000s.	: ← 8.0
LOW TOLE	
LOW IDLE	
	. 300
	: 300
Rated speed rpm	
Rated speed rpm Rack travel in mm	: 3.90
Rated speed rpm Rack travel in mm Tolerance mm	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity	: 3.90 : ← 0.10
LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: 3.90 : ← 0.10
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: 3.90 : + 0.10 : 12.0
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 3.90 : ← 0.10
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: 3.90 : + 0.10 : 12.0

Spreed
Tolerance
cm3/1000 strokes : 2.0
Check tolerance
cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 246 035

Injection pump

Pump designation : PES6MW100/720RS1517

: -3

EP type number : 0 413 206 020

Governor

Governer design. : RQV300...1300MW132

: -2

: 0 420 083 293 Governer no.

Cust. part No. : 0240744202

Customer-spec. information Customer : MB-NFZ Motor : 0M366LA Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 4.55 Tolerance mm : +- 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : **←** 1.00

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance "NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.25 Tolerance mm: +- 0.05

Del. quantity

cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s.

: **←** 3.0

	+	Tolerance mm : + 0.25
Tolerance cm3/1000 strokes	: 4.5	Rated speed rpm : 1683
	<u> </u>	guide sleeve
Check tolerance	+	travel mm : 12.00
cm3/1000s.	: 7.0	Tolerance mm : ← 0.25
	+	Rated speed rpm : 1780
	+	guide sleeve
Rated speed rpm	: 300	travel mm : 13.50
	+	Tolerance mm : + 0.50
Rack travel in mm		
Tolerance mm	: ← 0.10 +	
Del. quantity	+	GUIDE SLEEVE POSITION
cm3/1000 strokes	: 12.0	
Tolerance	+	
cm3/1000 strokes	: + 2.0 +	control lever
Check tolerance	, , , , , , , , , , , , , , , , , ,	position degree : - 1
cm3/1000s.	: +- 4.3	Rated speed rpm : 1400
Spr ee d Tolerance	T	Pools Applied in the AZ 00
cm3/1000 strokes	. 20 1	Rack travel in mm : 13.00 Tolerance mm : +- 2.00
Check tolerance	• • • • • • • • • • • • • • • • • • • •	roterance num : +- 2.90
cm3/1000s.	: 4.0	
(1807 10000)	· • • • • • • • • • • • • • • • • • • •	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF INJ	ECTION PUMP	Rated speed rpm : 1300
WITH GOVERNOR	+	Aneroid pressure
	1	hPa : 1000
		Del. quantity
GUIDE SLEEVE TRAVE	1 +	cm3/1000 strokes : 95.0
	+	Tolerance
	+	Tolerance cm3/1000 strokes : ← 1.0
guide sleeve	: 1353	Tolerance cm3/1000 strokes : ← 1.0 Check tolerance
guide sleeve travel mm	: 1353 : 6.70	Tolerance cm3/1000 strokes : ← 1.0 Check tolerance cm3/1000s. : ← 3.0
guide sleeve	: 1353 : 6.70	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 3.0 Spreed
guide sleeve travel mma Tolerance mma	: 1353 : 6.70 : ← 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 3.0 Spreed Tolerance
guide sleeve travel mm Tolerance mm Rated speed rpm	: 1353 : 6.70 : ← 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 1353 : 6.70 : ← 0.25 : 300	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 1353 : 6.70 : ← 0.25 : 300 : 1.02	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 1353 : 6.70 : ← 0.25 : 300 : 1.02	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : + 0.25 : 300 : 1.02 : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance
guide sleeve travel mma Tolerance mmma Rated speed rpma guide sleeve travel mmma Tolerance mmma Rated speed rpma caulde sleeve	: 1353 : 6.70 : ← 0.25 : 300 : 1.02 : ← 0.25 : 1100	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000S. : 7.0
guide sleeve travel mma Tolerance mmma Rated speed rpma guide sleeve travel mmma Tolerance mmma Rated speed rpma caulde sleeve	: 1353 : 6.70 : ← 0.25 : 300 : 1.02 : ← 0.25 : 1100	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance
guide sleeve travel mma Tolerance mmma Rated speed rpma guide sleeve travel mmma Tolerance mmma Rated speed rpma caulde sleeve	: 1353 : 6.70 : ← 0.25 : 300 : 1.02 : ← 0.25 : 1100	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 1353 : 6.70 : ← 0.25 : 300 : 1.02 : ← 0.25 : 1100	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : ← 0.25 : 300 : 1.02 : ← 0.25 : 1100	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : + 0.25 : 1100 : 4.76 : + 0.25 : 490	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : + 0.25 : 1100 : 4.76 : + 0.25 : 490	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : + 0.25 : 1100 : 4.76 : + 0.25 : 490	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED reck travel mm : 10.20
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.20 Rated speed rpm : 1345
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED reck travel mm : 10.20
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25 : 540	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.20 Rated speed rpm : 1345 Tolerance 1/min : + 5
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25 : 540 : 2.50	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.20 Rated speed rpm : 1345 Tolerance 1/min : + 5 rack travel mm : 4.00
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25 : 540 : 2.50	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED reck travel mm : 10.20 Rated speed rpm : 1345 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25 : 540 : 2.50 : → 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.20 Rated speed rpm : 1345 Tolerance 1/min : + 5 rack travel mm : 4.00
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25 : 540 : 2.50	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.20 Rated speed rpm : 1345 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : + 15
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 1353 : 6.70 : → 0.25 : 300 : 1.02 : → 0.25 : 1100 : 4.76 : → 0.25 : 490 : 2.25 : + 0.25 : 540 : 2.50 : → 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0 CONTROL LEVER control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED reck travel mm : 10.20 Rated speed rpm : 1345 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1460

Rated speed rom : 1550 LOW IDLE control lever position degree : tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 200 CRT man min. : > 4.20 Testing: Rated speed rpm 300 rack travel mm : 3.50 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1300 rack travel mms 11.25 : +- 0.05 Tolerance mm Rated speed rpm : 600 rack travel mm : 11.25 : +- 0.10 Tolerance no ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa 1000 11.25 rack travel man : **←** 0.05 Tolerance mm 500 Rated speed rpm : Pressure hPa : +- 0.10 Tolerance mm **MEASUREMENT** Rated speed rpm : 500 350 Pressure hPa rack travel mm 1.45

: **←** 0.10

250

0.75

Tolerance m_0 : $\leftarrow 0.10$ Start interlock Rated speed rpm :> 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check speed 1/min : < 240 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 1000 Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 87.0 Tolerance cm3/1000 strokes : \leftarrow 1.5 Check tolerance cm3/1000s. : +-4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 9.0 Aneroid pressure hPa Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 57.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes : \leftarrow 5.0 Check tolerance : +cm3/1000s. 8.0

LOW IDLE

Tolerance mm

Pressure hPa

rack travel mm :

Rated speed rpm	:	300
Rack travel in mm Tolerance mm Del. quantity	: +-	3.50 0.10
cm3/1000 strokes	:	12.0
cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000s. Spreed	: +-	4.5
Tolerance cm3/1000 strokes	:	2.0
Check tolerance cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 246 036

Injection pump

Pump designation : PES6MW100/720RS1517

: -2

EP type number : 0 413 206 019

Governor

Governer design. : RQV300...1300MW132

: 0 420 083 299 Governer no.

Cust. part No. : 0240744402

Customer-spec. information Customer : MB-NFZ : 0M366LA Motor Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 4,55 Tolerance mm : +- 0.05 Check : + 0.10 tolerance mm

Rack travel in mm : 20.00 ; +- 1.00 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.30 : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

: +- 3.0 cm3/1000s.

	+ Tolerance nam : +- 0.25
Tolerance	†
cm3/1000 strokes : 4.5	+ Rated speed rpm : 1683 + guide sleeve
Check tolerance	+ travel mm : 12.00
cm3/1000s. : 7.0	Tolerance mm : + 0.25
	Rated speed rpm : 1780
Detail aread area 700	guide sleeve
Rated speed rpm : 300	travel mm : 13.50
Rack travel in mm : 3.80	Tolerance mm : + 0.50
Tolerance mm : + 0.10	T
Del. quantity	GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0	I doing speed rosition
Tolerance	I
cm3/1000 strokes : + 2.0	- control lever
Check tolerance	position degree : VL
cm3/1000s. : + 4.5	- Position, dog. 66
Spreed	+ control lever
Tolerance	position degree : 125
cm3/1000 strokes : 2.0	+ Rated speed rpm : 1450
Check tolerance	+
cm3/1000s. : 4.0	+ Rack travel in mm : 13.00
	+ Tolerance mm : + 2.00
	+
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	FULL LOAD DELIVERY AT FULL LOAD STOP
	Parked and all and a 4700
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1300
GOIDE SEECAE LYMAET	+ Aneroid pressure + hPa : 1000
Rated speed rpm : 1353	T Del. quantity
guide sleeve	- cm3/1000 strokes : 118.0
travel mm : 6.70	+ Tolerance
Tolerance mm : + 0.25	+ cm3/1000 strokes : + 1.0
	+ Check tolerance
Räted speed rpm : 300	+ cm3/1000s. : $+$ 3.0
guide sleeve	Spreed
travel mm : 1.02	+ Tolerance
Tolerance mm : + 0.25	+ cm3/1000 strokes : 4.5
	+ Check tolerance
Rated speed rpm : 1100	+ cm3/1000s. : 7.0
guide steeve	†
travel mm : 4.76	†
Tolerance mm : + 0.25	CONTROL I MICH
Rated speed rpm : 490	+ CONTROL LEVER
Rated speed rpm : 490 guide sleeve	T control lever
travel mm : 2.25	position degree : 120.0
Tolerance mm : + 0.25	tolerance degree : + 4.0
Total divide limit	toter drive degree 4.0
Rated speed rpm : 540	+ RATED SPEED
guide sleeve	rack travel mm : 12.30
travel am : 2.50	+ Rated speed rpm : 1345
Tolerance man : + 0.25	Tolerance 1/min : + 5
	+
Rated speed rpm : 710	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1485
travel mm : 3.03	Tolerance 1/min : + 15

rack travel mm Tolerance mm Rated speed rpm	: ← 0.50
LOW IDLE	
control lever position degree tolerance degree	: 72.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 4.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 3.80 : + 0.10
Rated speed rpm rack travel mm	: 490 : 2.00
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.30 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1000 : 13.30 : + 0.05
Rated speed rpm Pressure hPa Tolerance mm	: 500 : - : + 0.10
MEASUREMENT	
Rated speed rpm	: 500

Pressure hPa	: 600
rack travel mm	3.00
Tolerance mm	: ← 0.10
Pressure hPa	: 300
rack travel mm	: 1.20
Tolerance mm	: + 0.10
Chart Interior	
Start interlock	
Rated speed rpm	: > 100
Rated speed rpm	: > 100 : < 200
Charl	
Check speed 1/min	: > 80
Check	. > 00
speed 1/min	: < 220
FUEL DELIVERY CHA	PACTEDISTICS
A DEET NEET ACK I CHA	AUMP LEUTO ITPO
-	
Aneroid pressure	4000
hPa Rated speed rpm	: 1000 : 600
Del. quantity	; 000
cm3/1000 strokes	: 119.0
Tolerance	
cm3/1000 strokes	: ← 1.5
Check tolerance cm3/1000s.	: +- 4.0
Spreed	: +- 4.0
Tolerance	
cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	. 0.0
CM3/10005.	: 9.0
Aneroid pressure	
hPa	: -
Rated speed rpm Dal. quantity	: 500
cm3/1000 strokes	: 48.0
Tolerance	
cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: ← 3.0
UND/ TOUSO:	
CTARTYLIC PURE	THEON
STARTING FUEL DEL	TAFKI
Rated speed rpm	: 100
Del. quantity	
cm3/1000 strokes	: 150.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 5.0
cm3/1000s.	: + 8.0

LOW IDLE

Rated speed rpm	•		300
Rack travel in mm Tolerance mm	_	+-	3.80 0.10
Del, quantity cm3/1000 strokes Tolerance	:		12.0
cm3/1000 strokes Check tolerance	:	+-	2.0
cm3/1000s. Spreed	:	+	4.5
Tolerance cm3/1000 strokes	:		2.0
Check tolerance cm3/1000s.	:		4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 246 043

Injection pump

Pump designation : PES6MW100/720RS1523 EP type number : 0 413 206 024

Governor

Governer design. : RQV300...1300MW148 Governer no. : 0 420 083 321

Cust. part No. : 0250744302

Customer : MB-NFZ
Motor : 0M366LA
Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : ← 0.05
Check
tolerance mm : ← 0.10

Rack travel in mm : 21.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.40 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 98.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Tolerance	}
cm3/1000 strokes : 4.5	Rated speed rpm : 1720 guide sleeve
Check tolerance cm3/1000s. : 7.0	travel mm : 13.50 Tolerance mm : + 0.50
Rated speed rpm : 300	GUIDE SLEEVE POSITION
Rack travel in mm : 4.00 - Tolerance mm : ← 0.10 - Del. quantity	control lever position degree : 123 Rated speed rpm : 1500
cm3/1000 strokes : 12.0 -	Rack travel in mm : 10.00
cm3/1000 strokes : +- 2.0	Tolerance mm : + 2.50
Check tolerance : + 4.5	
Spreed - Tolerance -	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : 2.0	Rated speed rpm : 1300
Check tolerance cm3/1000s. : 4.0	Aneroid pressure hPa : 700
	Del. quantity cm3/1000 strokes : 98.0
(B) SETTING OF INJECTION PUMP	Tolerance
WITH GOVERNOR	cm3/1000 strokes : +- 1.0 Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000s. : ← 3.0 Spreed
Rated speed rpm : 1354	Tolerance : 4.5
guide sleeve - travel mm : 9.32 -	Check tolerance : 7.0
Tolerance mm : + 0.25	
Rated speed rpm : 300 guide sleeve	CONTROL LEVER
travel mm : 0.92	
Tolerance mm : ← 0.25	control lever position degree : 118.0
Rated speed rpm : 1077 guide sleeve	tolerance degree : + 4.0
travel mm : 7.05	RATED SPEED
Tolerance mm : + 0.25	rack travel mm : 10.40 Rated speed rpm : 1345
Rated speed rpm : 514 - guide sleeve	Tolerance 1/min : + 5
travel mm : 2.14	rack travel mm : 4.00
Tolerance mm : + 0.25	- Rated speed rpm : 1455 - Tolerance 1/min : + 15
Rated speed rpm : 564 - guide sleeve -	- rack travel mm : 0.50
travel ma : 2.60	Tolerance mm : +- 0.50
Tolerance mma : + 0.25	Rated speed rpm : 1550
Rated speed rpm : 740 - guide sleeve	
travel mm : 3.93	
Tolerance mm : + 0.25	- LOW IDLE

control lever position degree tolerance degree	: 75.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 200
CRT mam main.	: > 4.70
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 4.00 : + 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1300 : 11.40 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.40 : +- 0.10
Rated speed rpm rack travel mm Tolerance mm	: 600 : 11.40 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 11.40 : +- 0.10
Rated speed rpm Pressure hPa Tolerance mm	: 500 : - 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 350 : 1.40 : ← 0.10
Pressure hPa rack travel mm Tolerance mm	: 250 : 0.70 : ← 0.10

Start interlock		
Rated speed rpm	: > 100)
Rated speed rpm	: > 100 : < 220	
Check		
speed 1/min Check	; > 80	J
speed 1/min	: < 240)
Op 00 0 17 111 111		•
FUEL DELIVERY CHA	RACTERISTIC	S
-		
Aneroid pressure		
hPa	: 700	
Rated speed rpm	: 750	
Del. quantity		
cm3/1000 strokes	: 83.0	,
Tolerance cm3/1000 strokes	: + 1.5	
Check tolerance	1.3	,
cm3/1000S.	: + 4.0)
Spreed		
Tolerance		
cm3/1000 strokes	: 6.0)
Check tolerance cm3/1000s.	: 9.0	,
CIII3/ 10003.	: 9.0	,
		-
Aneroid pressure	700	
hPa	: 700	
Rated speed rpm rack travel mma	: 600 : 11.40	1
Tolerance mm	: ← 0.10	
Del. quantity		•
cm3/1000 strokes	: 88.0)
Tolerance		
cm3/1000 strokes	: + 1.5	5
Check tolerance cm3/1000s.	: +- 4.0	1
UH2/ 10003.	· +- 4.0	,
<u></u>		
Aneroid pressure hPa	•	
Rated speed rpm	500	
Del. quantity	. 200	
cm3/1000 strokes	: 57.0)
Tolerance		
cm3/1000 strokes	: + 1.0)
Check tolerance	7 *	1
cm3/1000s.	: + 3.0	1
STARTING FUEL DEL	[VEBY	
OPHICTIAN LAST NET	r A C U I	
Rated speed rpm	: 100	

Del. quantity
cm3/1000 strokes : 125.0
Tolerance
cm3/1000 strokes : \(+ \) 5.0
Check tolerance
cm3/1000s. : \(+ \) 8.0

LOW IDLE

Rated speed rpm : 300 Rack travel in mm : 4.00 : + 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : \leftarrow 2.0 Check tolerance cm3/1000s. : **←** 4.5 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) \\\480/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 246 049

Injection pump

Pump designation : PES6MW100/720RS1523 EP type number : 0 413 206 024

6overnor

Governer design. : RQV300...1200MW148

-5

Governer no. : 0 420 083 327

Cust. part No. : 0250745002

Customer—spec. information Customer : MB-NFZ Motor : OM366LA Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05
Check

tolerance mm

: **←** 0.10

Rack travel in mm: 21.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.40

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

C17

	_
Tolerance	+
cm3/1000 strokes : 4.5	+ Rated speed rpm : 1720
	† guide sleeve
Check tolerance	† travel mm : 13.50
cm3/1000s. : 7.0	+ Tolerance mm : + 0.50
	+
	+ GUIDE SLEEVE POSITION
Rated speed rpm : 300	†
	. †
Rack travel in mm: 4.00	+ control lever
Tolerance mm : + 0.10	position degree : 123
Del. quantity	+ Rated speed rpm : 1500
cm3/1000 strokes : 12.0	†
Tolerance	+ Rack travel in mm : 10.00
cm3/1000 strokes : + 2.0	Tolerance mm : + 2.50
Check tolerance	†
cm3/1000s. : + 4.5	FILL LAIR PELTURNAL ARE SULL ASSESSMENT
Spreed	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes : 2.0	T Dutad and
	Rated speed rpm : 1200
Check tolerance cm3/1000s. : 4.0	+ Aneroid pressure
cm3/1000s. : 4.0	+ hPa : 700
	+ Del. quantity + cm3/1000 strokes : 96.0
(B) SETTING OF INJECTION PUMP	+ Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : + 1.0
MILLI GOACIGACK	+ Check tolerance
	- cm3/1000s. : + 3.0
GUIDE SLEEVE TRAVEL	- Spreed - 5.0
GOIDE SEEEVE TRAVEL	+ Tolerance
Rated speed rpm : 1214	- cm3/1000 strokes : 4.5
guide sleeve	Check tolerance
travel mm : 8.08	- cm3/1000s. : 7.0
Tolerance non : +- 0.25	1
	1
Rated speed rpm : 300	
guide sleeve	+ CONTROL LEVER
travel min : 0.92	+
Tolerance mm : + 0.25	+ control lever
	position degree : 118.0
Rated speed rpm : 1031	+ tolerance degree : +- 4.0
guide sleeve	†
travel mm : 6.74	+ RATED SPEED
Tolerance mm : +- 0.25	+ rack travel mm : 10.40
	+ Rated speed rpm : 1245
Rated speed rpm : 514	+ Tolerance 1/min : +- 5
guide sleeve	+
travel mm : 2.14	rack travel mm : 4.00
Tolerance mm : ← 0.25	Rated speed rpm : 1375
	† Tolerance 1/min : + 15
Rated speed rpm : 564	†
guide steeve	rack travel mm : 0.50
travel mm : 2.60	+ Tolerance mm : + 0.50
Tolerance mm : ← 0.25	+ Rated speed rpm : 1500
Dated aread are a 7/0	†
Rated speed rpm : 740	†
guide sleeve	†
travel mm : 3.93	LOUTDUE
Tolerance ma : \leftarrow 0.25	+ LOW IDLE

control lever position degree : 75.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 200 CRT mm min. : > 4.70 Testing: Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 11.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10		
Rated speed rpm : 200 CRT mm min. : > 4.70 Testing: Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 11.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 500 Pressure hPa :		: 75.0 : ← 4.0
Testing: Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 11.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 500 Pressure hPa : 350 rack travel mm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : + 0.10	Setting point w/o	out bumper spring
Testing: Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 11.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 500 Pressure hPa : - 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : - 0.10	Rated speed rpm	: 200
Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 11.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : - 1.40 Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : - 0.10 Pressure hPa : 250 rack travel mm : 0.70	CRT mm min.	: > 4.70
Tolerance mm : 4.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 11.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : - 1.40 Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : - 0.10 Pressure hPa : 250 rack travel mm : 0.70	Testing:	
Rated speed rpm : 1200 rack travel mm : 11.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 250 rack travel mm : 0.70	rack travel mm	: 4.00
Rated speed rpm : 600 rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : - 1.40 Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 250 rack travel mm : 0.70	Rated speed rpm rack travel mm	: 11.40
rack travel mm : 11.40 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : - Tolerance mm : + 0.10 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70	reck travel mm	: 750 : 11.40 : + 0.10
COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70	rack travel mm	: 11.40
Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70		······································
Pressure hPa : 700 rack travel mm : 11.40 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70	SETTING	
Pressure hPa : - Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70	Pressure hPa rack travel mm	: 700 : 11.40
Rated speed rpm : 500 Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70	Pressure hPa	
Pressure hPa : 350 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70	MEASUREMENT	
rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 250 rack travel mm : 0.70	Rated speed rpm	: 500
rack travel mm : 0.70	rack travel mm	: 1.40
	rack travel mm	: 0.70

Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 220
Check speed 1/min Check	: > 80
speed 1/min	: < 240
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	: 700
Rated speed rpm Del. quantity	: 750
cm3/1000 strokes Tolerance	: 88.0
cm3/1000 strokes Check tolerance	: +- 1.5
cm3/1000s. Spreed	: ← 4.0
Tolerance cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Aneroid pressure	
hPa	: 700
Rated speed rpm	: 700 : 600
rack travel mm	: 11.40
Tolerance mm Del. quantity	: + 0.10
cm3/1000 strokes Tolerance	: 88.0
cm3/1000 strokes Check tolerance	: +- 1.5
cm3/1000s.	: +- 4.0
Aneroid pressure	
hPa Rated speed rpm	: - : 500
Del. quantity cm3/1000 strokes	: 57.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	: ← 3.0
STARTING FUEL DEL	
Rated speed rpm	: 100

Del. quantity cm3/1000 strokes	:	125.0
Tolerance cm3/1000 strokes	: +	- 5.0

Check tolerance cm3/1000S. : ← 8.0

LOW IDLE

cm3/1000s.

Rated speed rpm : 300

Rack travel in mm : 4.00
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 12.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 2.0
Check tolerance

End of test specification sheet

4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 274 007

Injection pump

Pump designation : PES4MW100/720RS1524

EP type number : 0 413 204 021

Governor

Governer design. : RSV350...1200MW0A356

: -2

Governer no. : 0 420 085 273

Cust. part No. : 0260748302

Customer—spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 11.15

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 86.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

		+	
Check tolerance cm3/1000s.	: 6.0	control lever position degree tolerance degree	: 103.0 : + 4.0
Rated speed rpm Del. quantity cm3/1000 strokes		RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 1245
Tolerance cm3/1000 strokes Check tolerance	: ← 2.0	† rack travel mm † Tolerance mm	: 1.00
cm3/1000s. Spreed	: + 4.5	Rated speed rpm	: 1400
Tolerance cm3/1000 strokes Check tolerance		†	
cm3/1000s.	: 5.5	LOW IDLE	
(B) SETTING OF IN	NECTION PUMP	Setting point w/	out bumper sp
WITH GOVERNOR		Rated speed rpm	: 350
		rack travel mma Tolerance mm	: 4.00
		† Tolerance mm	: + 0.10
GUIDE SLEEVE POSI	TION	Rated speed rpm	: 100
		+ CRT mm min.	: > 19.50
control lever		+	
position degree	: - 3	+	
position degree Rated speed rpm	: 800	+ TORQUE CONTROL	
		Rated speed rpm	: 1200
Rack travel in mm		rack travel mm	: 11.15
Tolerance mm	: ← 0.35	Tolerance mm	: +- 0.05
governor spring		Rated speed rpm	: 750
pre-tension		+ rack travel mm	: 11.15
click setting x	: 4.50	† Tolerance mm	: + 0.10
FULL LOAD DELIVER	Y AT FULL LOAD STOP	ANEROID/ALTITUDE	
Rated speed rpm	: 1200	COMPENSATOR TEST	
Aneroid pressure hPa	: 1400	SETTING	
Del. quantity cm3/1000 strokes	: 86.0	+ Rated speed rpm	: 500
Tolerance		+ Pressure hPa	: 1400
cm3/1000 strokes	: + 1.0	† rack travel mm	: 11.15
Check tolerance cm3/1000s.	: - 3.0	+ Tolerance mm	: +- 0.10
Spreed		Rated speed rpm	: 500
Tolerance		+ Pressure hPa	: -
cm3/1000 strokes	: 3.5	† Tolerance mm	: + 0.10
Check tolerance cm3/1000s.	: 6.0	+ MEASUREMENT	
		+ Rated speed rpm	: 500
CONTROL LEVER		+ Pressure hPa	: 250

spring

rack travel mm : 0.25 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa 1400 Rated speed rpm 750 Del. quantity cm3/1000 strokes : 0.08 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : +-4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 71.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 3.0

7.0

STARTING FUEL DELIVERY

cm3/1000s.

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 125.0
Tolerance
cm3/1000 strokes : + 5.0
Check tolerance
cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 350
Del. quantity
cm3/1000 strokes : 12.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 444 144

Injection pump

Pump designation : PES4MW100/720RS1151 EP type number : 0 413 404 104

Governor

Governer design. : RQV300...1300MW67-7

Governer no. : 0 420 083 278

Cust. part No. : 0230745902

Customer—spec. information Customer : MB-NFZ Motor : 0M364A Power KW : 79.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.85 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

83.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

: **←** 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.	: 6.0
Rated speed rpm	: 300
Rack travel in ma	
Tolerance mm Del. quantity	: + 0.10
cm3/1000 strokes Tolerance	: 12.0
cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: +- 4.5
Spreed Tolerance	•
cm3/1000 strokes	: 3.5
Check tolerance cm3/1000S.	: 5.5
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	
	: 300
Rated speed rom guide sleeve	
travel mm Tolerance mm	: 1.40 : +- 0.25
Rated speed rpm	: 477
guide sleeve travel ma	: 2.85
Tolerance mm	: + 0.25
Rated speed rpm	: 490
guide sleeve travel mm	: 2.93
Tolerance mm	: 2.93 : ← 0.25
Rated speed rpm	: 1600
guide sleeve travel mm	: 11.50
Tolerance mm	: 11.50 : +- 0.50
GUIDE SLEEVE POSI	TION
control lever	
position degree Rated speed rpm	: - 1 : 1435
Rack travel in mon Tolerance mon	

FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	: 1300
Aneroid pressure	: 700
Del. quantity	. 700
cm3/1000 strokes	: 83.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance	• • • • • • • • • • • • • • • • • • • •
cm3/1000s.	: + 3.0
Spreed Tolerance	
cm3/1000 strokes	: 3.5
Check tolerance	
cm3/1000s.	: 6.0
CONTROL LEVER	
control lever	
position degree	: 112.0
tolerance degree	: +- 4.0
DATEN CREEN	
RATED SPEED rack travel mm	: 9.80
Rated speed rpm	: 1345
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
Rated speed rpm	: 1435
Tolerance 1/min	: - 15
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 1500
LOW IDLE	
control lever	
position degree tolerance degree	: 78.0
tolerance degree	: +- 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 8.00
Testing:	
· · · · · · · · · · · · · · · · ·	

Rated speed rpm : 300 rack travel mm : 6.40

Tolerance ma	· 4 0 10	1. Chack
I ULET OFFICE THE	0.10	+ Check + speed 1/min :> 80
rack travel mm	: 2.00	+ Check
Rated speed rpm	: 510	+ speed 1/min : < 230
Rated speed rpm Tolerance 1/min	: ← 30	†
	****	FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL		TOTE PETIVENI CHANACIERISIES
Rated speed rpm		
rack travel mm	: 10.85	+ Aneroid pressure
Tolerance mm	: - 0.05	+ hPa : 700
		Rated speed rpm : 600
Rated speed rpm		+ Del. quantity
rack travel mm	: 11.65	- cm3/1000 strokes : 77.0
Tolerance mm	: ← 0.05	+ Tolerance
	-	+ cm3/1000 strokes : + 1.5
Rated speed rpm	: 1000	† Check tolerance
rack travel mm Tolerance mma	: 11.65	+ cm3/1000s. : $+$ 4.0
rolerance mm	: ← 0.10	+ Spreed
		+ Tolerance
Rated speed rpm	: 1175	+ cm3/1000 strokes : 5.0
rack travel mm	: 11.40	+ Check tolerance
Tolerance mm	: + 0.10	+ cm3/1000s. : 7.0
		+
NEROID/ALTITUDE		pack thought men
OMPENSATOR TEST		+ rack travel mm : 11.65 + Tolerance mm : + 0.10
METERONIUM 1231		+ locerance mm : + U.10
ETTING		+ Aneroid pressure
		+ hPa : -
ated speed rpm	: 500	+ Rated speed rpm : 500
ressure hPa		+ Del. quantity
ack travel mm		+ cm3/1000 strokes : 46.0
olerance mm	: ← 0.05	+ Tolerance
		+ cm3/1000 strokes : ← 1.0
ated speed rpm	: 500	† Check tolerance
ressure hPa	: -	+ cm3/1000s. : $+$ 3.0
ack travel mm	: 9.75	+
lerance mm	: ← 0.05	+
EASUREMENT		STARTING FUEL DELIVERY
		+
ted speed rpm	: 500	+ Rated speed rpm : 100
		+ Del. quantity
essure hPa ck travel mm	: 300	+ cm3/1000 strokes : 83.0
ck travel mm	: 11.40	+ Tolerance
erance mm	: + 0.10	+ cm3/1000 strokes : +- 5.0
		+ Check tolerance
essure hPa	: 150	+ cm3/1000s. : $+$ 8.0
ck travel mm		+
erance mm		+
	2.7.	+
art interlock		LOW IDLE
		+
- 4 - 4	400	1 0-4-d 1 200
ted speed rpm	: > 100	+ Rated speed rpm : 300
ted speed rpm ted speed rpm	: > 100 : < 200	+
ted speed rpm ted speed rpm	: > 100 : < 200	Rated speed rpm : 300 Rack travel in mm : 6.40 Tolerance mm : + 0.10

Del. quantity cm3/1000 strokes	:	12.0
Tolerance cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s. Spreed	: +	4.5
Tolerance cm3/1000 strokes	•	3.5
Check tolerance cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.12.97 Edition : ISO 4113 Test oil

Combination No. : 0 403 446 158

Injection pump

Pump designation : PES6MW100/720RS1131 EP type number : 0 413 406 123

Governor

Governer design. : RQV300...1300MW50-1

: 0 420 083 089 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : OM 366 LA Motor Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 : +-Tolerance °C 2.0

: 1 417 413 047 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 3.75 Tolerance mm Check tolerance mm : ← 0.10

Rack travel in mm : 10.50 Tolerance mm : **←** 1.50

: 1-5-3-6-2-Firing order : 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 12.25 : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 97.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : **←** 3.0

Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1600
Check tolerance cm3/1000s. : 6.0	guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
Ratted speed rpm : 300	GUIDE SLEEVE POSITION
	+
Rack travel in mm: 6.90 Tolerance mm: + 0.10 Del. quantity	<pre>control lever position degree : - 1 Rated speed rpm : 1340</pre>
cm3/1000 strokes : 11.0 Tolerance	Rack travel in mm: 16.50
cm3/1000 strokes : +- 2.0 Check tolerance	Tolerance mm : + 1.30
cm3/1000s. : + 4.5 Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance 3.5	Rated speed rpm : 1300
Check tolerance cm3/1000S. : 5.5	+ Aneroid pressure + hPa : 700
	+ Del. quantity + cm3/1000 strokes : 97.5
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance cm3/1000 strokes : + 1.0 Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000s. : + 3.0 - Spreed
Rated speed rpm : 1354	Tolerance cm3/1000 strokes : 3.5
guide sleeve travel mm : 8.68 Tolerance mm : +- 0.25	Check tolerance cm3/1000s. : 6.0
Rated speed rpm : 300	
guide sleeve	+ CONTROL LEVER
travel mm : 1.40	†
Tolerance mm : → 0.25	control lever position degree : 114.0
Rated speed rpm : 881 guide sleeve	tolerance degree : +- 4.0
travel mm : 5.02 Tolerance mm : + 0.25	+ RATED SPEED + rack travel mm : 11.20
	+ Rated speed rpm : 1345
Rated speed rpm : 363 guide sleeve	Tolerance 1/min : +- 5
travel mm : 2.05	† rack travel mm : 4.00
Tolerance mm : +- 0.25	Rated speed rpm : 1455 Tolerance 1/min : +- 15
Rated speed rpm : 413 guide sleeve	rack travel mm : 0.50
travel mm : 2.44	+ Tolerance mm : + 0.50
Tolerance mm : + 0.25	+ Rated speed rpm : 1550
Rated speed rpm : 500 guide sleeve	‡
travel mm : 2.99	+
Tolerance mm : + 0.25	+ LOW IDLE

D01

control lever	
position degree	: 80.0
tolerance degree	: + 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 7.60
Testing:	
Rated speed rpm	: 300
rack travel mm	: 6.90
Tolerance mm	: + 0.10
TORQUE CONTROL	
Rated speed rpm	: 1300
rack travel mm	: 12.25
Tolerance mm	: ← 0.05
Rated speed rpm	: 575
rack travel mm Tolerance mm	: 12.25
:Oterance ma	: + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm	: 500
Pressure hPa	: 700
rack travel mm Tolerance mm	: 12.25 : + 0.10
Rated speed rpm Pressure hPa	: 500
Tolerance ima	: - 0.05
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa	: 225
rack travel mm	: 1.40
Tolerance mm	: ← 0.10
Pressure hPa	: 170
rack travel mm	
Tolerance mm	: ← 0.10
Start interlock	
Rated speed rpm	: > 100

Rated speed rpm	: < 220
Check speed 1/min Check	: > 80
speed 1/min	: < 250
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: 700
Rated speed rpm Del. quantity	: 575
cm3/1000 strokes Tolerance	: 84.5
cm3/1000 strokes Check tolerance	: + 1.5
cm3/1000s. Spreed	: + 4.0
Tolerance cm3/1000 strokes Check tolerance	: 5.0
cm3/1000s.	: 7.0
Aneroid pressure	• -
Rated speed rpm Del. quantity	: 500
cm3/1000 strokes Tolerance	: 52.0
cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: ← 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity	: 100
cm3/1000 strokes	: 88.0
Tolerance cm3/1000 strokes	: ← 5.0
Check tolerance cm3/1000S.	; - 8.0
LOW IDLE	
Rated speed rpm	: 300
Rack travel in mm Tolerance mm	: 6.90 : + 0.10
Del. quantity cm3/1000 strokes	: 11.0

Tolerance cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s. Spreed	: +-	4.5
Tolerance cm3/1000 strokes	:	3.5
Check tolerance cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 446 177

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

6overnor

Governer design. : RQV300...1300MW48

Governer no. : 9 420 983 966

Cust. part No. :

Customer spec. information Customer : MB-NFZ Motor : 0M366A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0
Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.05 Tolerance mm : ← 0.05

Del. quantity

cm3/1000 strokes : 78.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Tolerance cm3/1000 strokes	: 3.5	control lever position degree : - 1
Check tolerance cm3/1000s.	: 6.0	Rated speed rpm : 1440
		Rack travel in mm : 10.00 Tolerance mm : +- 2.00
Rated speed rpm	: 300	FULL LOAD DELIVERY AT FULL LOAD ST
Rack travel in mm	i: 7.90	TOLL LOAD DELIVERY AT FOLL LOAD ST
Tolerance mm		Rated speed rpm : 1300
Del. quantity	+	Aneroid pressure
cm3/1000 strokes Tolerance	: ''.u I	hPa : - Del. quantity
cm3/1000 strokes	: + 2.0	cm3/1000 strokes : 78.0
Check tolerance	_ +	Tolerance
cm3/1000s.	: ← 4.5 +	cm3/1000 strokes : + 1.0
Spreed Tolerance	Ī	Check tolerance cm3/1000s. : +- 3.0
cm3/1000 strokes	: 3.5	Spreed
Check tolerance	<u> </u>	Tolerance
cm3/1000s.	: 5.5	cm3/1000 strokes : 3.5
	Ī	Check tolerance cm3/1000s. : 6.0
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	
		CONTROL LEVER
GUIDE SLEEVE TRAV	/EL +	
Dated amond non	: 1354	control lever
Rated speed rpm guide sleeve	: 1334	position degree : 113.0 tolerance degree : +- 4.0
travel mm	: 8.65	to tot allow dogs to
Tolerance mm	: + 0.15 +	RATED SPEED
Poted speed nom	: 300	rack travel mm : 10.00 Rated speed rpm : 1345
Rated speed rpm guide sleeve	. 300	Tolerance 1/min : + 5
travel mm	: 1.37	
Tolerance mm	: ← 0.20 +	rack travel mm : 4.00
Rated speed rpm	: 885	Rated speed rpm : 1440 Tolerance 1/min : +- 15
guide sleeve	. 223	rocerance main
travel mm	: 5.01	rack travel mm : 0.50
Tolerance mm	: +- 0.25	Tolerance mm : +- 0.50 Rated speed rpm : 1550
Rated speed rpm	: 490	
guide sleeve travel mm	: 2.86	
Travel mm Tolerance mm	:	
. J COT OF TOO THE	Ţ	LOW IDLE
Rated speed rpm	: 1610	
guide sleeve	. 11 50	control loven
travel mm Tolerance mm	: 11.50 : +- 0.50	control lever position degree : 83.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSI	TION	Setting point w/out bumper spring
	, ‡	Rated speed rpm : 100

FULL LOAD STOP

		1
CRT mon min.	: > 8.70	Ane
Testing:		+ hPa
iesting.		+ Rat
Pated speed rom	• 300	+ raci
Rated speed rpm	. 300	† Tole
rack travel mm Tolerance mm	. 7.90	+ Del
roterance mm	: - 0.10	+ cm3.
Datad assad ass	. /45	+ Tole
Rated speed rpm	: 415	+ cm3.
_		+ Che
TORQUE CONTROL		+ cm3.
	4700	†
Rated speed rpm	1300	†
rack travel mm Tolerance mm	: 11.05	†
iolerance am	: - 0.05	+ STAI
Pated speed me	• 800	j n
Rated speed rpm	• 11 00	Rate
rack travel mm Tolerance mm	· 11.70	+ Del
יטנכימונכ והה	0.10	+ cm3.
Patad speed nom	• 585	+ Tole
nated speed that	· 12 10	+ cm3
Rated speed rpm rack travel mm Tolerance mm	· · · · · · · · · · · · · · · · · · ·	+ Che
・しして・ロールで(種類)	. +- C. IU	t cm3
Rated speed rpm	: 1100	I
rack travel mm	: 11.20	1
rack travel mm Tolerance mm	: + 0.10	1
		LOW
Start interlock		Rat
		Rac
Rated speed rpm Rated speed rpm	: > 100	+ Tole
Rated speed rpm	: < 230	+ Del
		+ cm3.
Check		† Tole
speed 1/min	: > 80	+ cm3
Check		+ Che
speed 1/min	: < 250	+ cm3.
		+ Spr
		+ Tole
FUEL DELIVERY CHA	RACTERISTICS	+ cm3.
		+ Che
Anonoid magazine		+ cm3.
Aneroid pressure		†
hPa Rated speed rpm	 . 800	Ţ
	. 000	T
Del. quantity cm3/1000 strokes	. 77.0	1
	: 77.0	Ť
Tolerance	A F.	+ End
cm3/1000 strokes	: +- 1.5	†
Check tolerance		†
	: +- 4.0	†
	•	1
cm3/1090s. Spreed	·	Ţ
Spreed Tolerance		Ŧ
Spreed Tolerance cm3/1000 strokes	: 5.0	Ŧ
Spreed Tolerance	: 5.0 : 7.0	<u> </u>

Aneroid pressure	
hPa	• -
Rated speed rpm	: 585
rack travel mm	: 12.10
Tolerance mm	: + 0.10
Del. quantity	
cm3/1000 strokes	: 70.0
Tolerance	
cm3/1000 strokes	: ← 1.5
Check tolerance	
cm3/1000s.	: ← 4.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity	. 07.6
cm3/1000 strokes	: 83.0
Tolerance cm3/1000 strokes	: 5.0
CIRTY LOCK STLOKES	: 5.0
	• • 5.0
Check tolerance	- • •
	: + 8.0
Check tolerance cm3/1000s.	- • •
Check tolerance	- • •
Check tolerance cm3/1000s.	: +- 8.0
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm	: + 8.0 : 300
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm	: + 8.0
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity	: + 8.0 : 300 : 7.90 : + 0.10
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: + 8.0 : 300 : 7.90 : + 0.10
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: + 8.0 : 300 : 7.90 : + 0.10
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: + 8.0 : 300 : 7.90 : + 0.10
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: + 8.0 : 300 : 7.90 : + 0.10 : 11.0 : + 2.0
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 8.0 : 300 : 7.90 : + 0.10 : 11.0
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: + 8.0 : 300 : 7.90 : + 0.10 : 11.0 : + 2.0
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 8.0 : 300 : 7.90 : + 0.10 : 11.0 : + 2.0 : + 4.5
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: + 8.0 : 300 : 7.90 : + 0.10 : 11.0 : + 2.0
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 8.0 : 300 : 7.90 : + 0.10 : 11.0 : + 2.0 : + 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 446 216

Injection pump

Pump designation : PES6MW100/720RS1144 EP type number : 0 413 406 138

Governor

Governer design. : RQV300...1400MW48-8 Governer no. : 0 420 083 175

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : OM 366 A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 715 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

tolerance mm

Tolerance mm

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05
Check

Rack travel in mm: 10.50

Firing order : 1-5-3-6-2-

: + 0.10

: +- 1.50

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 10.75
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 78.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Tolerance cm3/1000 strokes	: 3.5	t control lever
Check tolerance		position degree : - 1 Rated speed rpm : 1590
cm3/1000s.	: 6.0	Rack travel in mm : 9.75 Tolerance mm : + 1.30
Rated speed rpm	: 300	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in me	m: 7.90	T FOLL LOAD DELIVERY AT FOLL LOAD STOP
Tolerance mm Del. quantity		Rated speed rpm : 1400 Aneroid pressure
cm3/1000 strokes Tolerance	: 11.0	hPa : - Del. quantity
cm3/1000 strokes Check tolerance	: ← 2.0	cm3/1000 strokes : 78.0 Tolerance
cm3/1000s. Spreed	: +- 4.5	cm3/1000 strokes : + 1.0 Check tolerance
Tolerance cm3/1000 strokes	: 3,5	cm3/1000s. : +- 3.0 + Spreed
Check tolerance		+ Tolerance + cm3/1000 strokes : 3.5
31127 100001		+ Check tolerance + cm3/1000s. : 6.0
(B) SETTING OF I	NUECTION PUMP	1
		CONTROL LEVER
GUIDE SLEEVE TRAV	VEL	†
Rated speed rpm	: 1453	control lever position degree : 111.0
guide sleeve travel mm	: 8.30	tolerance degree : + 4.0
Tolerance mm	: + 0.15	RATED SPEED . 9.70
Rated speed rpm guide sleeve	: 300	+ Rated speed rpm : 1445 + Tolerance 1/min : + 5
travel mm Tolerance mm	: 1.22 : + 0.20	rack travel mm : 4.00
Rated speed rom		Rated speed rpm : 1550 Tolerance 1/min : +- 15
guide sleeve		+
travel mm Tolerance mm	: 3.30 : + 0.25	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rom	: 400	Rated speed rpm : 1650
guide sleeve travel mm	: 2.30	Ī
Tolerance mm	: + 0.25	LOW IDLE
Rated speed rpm guide sleeve	: 1770	
travel mm	: 11.50	control lever
Tolerance mm	: - 0.50	position degree : 80.0 tolerance degree : + 4.0
GUIDE SLEEVE POST	ITION	Setting point w/out bumper spring
		Rated speed rpm : 100

CRT mm min.	: > 10.00	
Testing:		
Rated speed rpm rack travel mm Tolerance mm	: 300 : 7.90 : + 0.10	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1400 : 10.75 : + 0.05	
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.25 : + 0.05	
Rated speed rpm rack travel mm Tolerance mm	: 950 : 11.80 : ← 0.10	
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 10.95 : + 0.15	
	······································	
Start interlock		
Rated speed rpm Rated speed rpm	: > 100 : < 200	
Check speed 1/min Check	: > 80	
speed 1/min	: < 230	
FUEL DELIVERY CHA	RACTERISTICS	_
Aneroid pressure		
hPa Rated speed rpm	: - : 750	
hPa Rated speed rpm Del. quantity cm3/1000 strokes	: - : 750 : 78.0	
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes		
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 78.0	
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 78.0 : + 1.5	
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 78.0 : ← 1.5 : ← 4.0	

009

Tolerance mm	:	+-	0.10)	
STARTING FUEL DELI		ERY			
Rated speed rpm	:		100		
Del. quantity	٠		.00		
cm3/1000 strokes	:		83.0)	
Tolerance					
cm3/1000 strokes	:	+-	5.0	}	
Check tolerance cm3/1000s.			8.0	1	
CIID/ 10003.	•	-	0.0	,	
LOW IDLE					
EVW IDEE					
	:		300		
Rated speed rpm				ı	
		+	300 7.90 0.10		
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity		+-	7.90		
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes		+-	7.90)	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	:	+-	7.90 0.10 11.0)	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	:	+-	7.90 0.10)	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	:	+-	7.90 0.10 11.0 2.0)))	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	:	+-	7.90 0.10 11.0)))	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	:	+-+	7.90 0.10 11.0 2.0)))	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	:	+-++	7.90 0.10 11.0 2.0))) 5	
Rated speed rpm Rack travel in mm	•	+-++	7.90 0.10 11.0 2.0 4.5)) ;	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 446 280

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

6overnor

Governer design. : RQV300...1300MW50

: -19

Governer no. : 0 420 083 245

Cust. part No. : 0210742202

Customer-spec. information

Customer : MB-NFZ Motor : 0M366LA Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.15
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 100.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.

: +- 3.0

	† Tolerance mm : +- 0.25
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1485 guide sleeve
Check tolerance	travel mm : 10.00
cm3/1000s. : 6.0	Tolerance mm : + 0.25
	Rated speed rpm : 1620 guide sleeve
Rated speed rpm : 300	travel mm : 11.50 Tolerance mm : + 0.50
Rack travel in mm: 6.50	+
Tolerance mm : + 0.10	
Del. quantity	→ GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0	+
Tolerance	+
cm3/1000 strokes : + 2.0	+ control lever
Check tolerance	→ position degree : - 1
cm3/1000s. : +- 4.5 Spreed	Rated speed rpm : 1350
Tolerance	+ Rack travel in mm : 16.50
cm3/1000 strokes : 3.5	→ Tolerance mm : ← 1.30
Check tolerance	+
cm3/1000s. : 5.5	
	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1300
WITH GOVERNOR	+ Aneroid pressure
	+ hPa : 1000
	- + Del. quantity
GUIDE SLEEVE TRAVEL	+ cm3/1000 strokes : 100.0
	+ Tolerance
Rated speed rpm : 1360	+ cm3/1000 strokes : + 1.0
guide sleeve	- Check tolerance
travel mm : 8.64	+ cm3/1000s. : + 3.0
Tolerance mm : + 0.25	Spreed
	Tolerance
Rated speed rpm : 300	- cm3/1000 strokes : 3.5
guide sleeve	- Check tolerance
travel mm : 0.92	+ cm3/1000s. : 6.0
Tolerance mm : + 0.25	
	+
Rated speed rpm : 2240	AMETRAL I FILES
guide sleeve	+ CONTROL LEVER
travel mm : 24.82	†
Tolerance mm : +- 0.25	+ control lever
704	+ position degree : 118.0
Rated speed rpm : 721	tolerance degree : + 4.0
guide sleeve	†
travel mm : 5.69	+ RATED SPEED
Tolerance mm : + 0.25	+ rack travel mm : 12.10
	+ Rated speed rpm : 1350
Rated speed rpm : 771	+ Tolerance 1/min : +- 5
guide sleeve	+
travel mm : 6.11	+ rack travel mm : 4.00
Tolerance mm : + 0.25	+ Rated speed rpm : 1475
	+ Tolerance 1/min : + 15
Rated speed rpm : 1050	+
guide sleeve	rack travel mm : 0.50
travel mm : 7.14	+ Tolerance mm : + 0.50
	1

Rated speed rpm	: 1600	rack travel mm Tolerance mm	
LOW IDLE		Start interlock	
		Rated speed rpm Rated speed rpm	: > 100 : < 220
control lever		+	
position degree tolerance degree		+ Check + speed 1/min	: > 80
Satting point 11/2	out human anning	+ Check	
secting point wit	out bumper spring	speed 1/min	: < 240
Rated speed rpm		FUEL DELIVERY CHA	ARACTERISTICS
CRT mm min.	: > 8.00	‡	
Testing:		Aneroid pressure	: 1000
Rated speed rpm	: 300	Rated speed rpm	
rack travel mm	: 6.50	+ Del. quantity	
Tolerance mm	: ← 0.10	+ cm3/1000 strokes + Tolerance	: 92.0
		+ cm3/1000 strokes	: ← 1.5
TORQUE CONTROL	4700	+ Check tolerance	
Rated speed rpm rack travel mm		+ cm3/1000s. + Spreed	: ← 4.0
Tolerance mm		Tolerance	
		+ cm3/1000 strokes	: 5.0
Rated speed rpm		+ Check tolerance	
rack travel mm Tolerance mm		- cm3/1000s.	: 7.0
roter direc imit	0.10	Į	
		Aneroid pressure	
ANEROID/ALTITUDE		+ hPa	: -
COMPENSATOR TEST		+ Rated speed rpm + Del. quantity	: 500
		cm3/1000 strokes	: 43.0
SETTING		Tolerance	
		+ cm3/1000 strokes	: ← 1.0
Rated speed rpm		Check tolerance	. 7.0
Pressure hPa rack travel mm	: 1000 : 13.15	t cm3/1000s.	: ← 3.0
Tolerance mm	: + 0.10	Ţ	
Rated speed rpm Pressure hPa	: 500	STARTING FUEL DEL	LIVERY
rack travel mm	10.55	+ Rated speed rpm	: 100
Tolerance mm	: - 0.05	+ Del. quantity	
MEAGUDEMENT		+ cm3/1000 strokes	: 105.0
MEASUREMENT		+ Tolerance + cm3/1000 strokes	: ← 5.0
Rated speed rpm	: 500	+ Check tolerance	
Pressure hPa	: 350	t cm3/1000s.	: +- 8.0
rack travel mm	: 12.55	Ī	
Tolerance mm	: ← 0.15	+	
Pressure hPa	: 200	LOW IDLE	

Rated speed rpm	:		300
Rack travel in mm Tolerance mm	:	+-	6.50 0.10
Del. quantity cm3/1000 strokes Tolerance	:		12.0
cm3/1000 strokes Check tolerance	:	+-	2.0
cm3/1000s. Spreed	;	+	4.5
Tolerance cm3/1000 strokes Check tolerance	:		3.5
cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 446 303

Injection pump

Pump designation: PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

Governor

Governer design. : RQV300...1300MW50

: -25

: 0 420 083 271 Governer no.

Cust. part No. : 0220745302

Customer-spec. information Customer : MB-NFZ Motor : 0M366LA

Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 : 4- 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 7.0

Prestroke mm : 3.65 : **←** 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 12.95

: **←** 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s.

: +- 3.0

- 1	+ Tolerance mm : +- 0.25
Tolerance	†
cm3/1000 strokes : 3.5	+ Rated speed rpm : 1600
	+ guide sleeve
Check tolerance	+ travel mm : 11.50
cm3/1000s. : 6.0	+ Tolerance mm : + 0.50
	+
	CUTAE OLEFUE DOCTETAL
Rated speed rpm : 300	+ GUIDE SLEEVE POSITION
Rated speed rpm : 300	Ť
Rack travel in mm: 7.15	- control lever
Tolerance ma : +- 0.10	position degree : 116
Del. quantity	+ Rated speed rpm : 1400
cm3/1000 strokes : 12.0	1 Marca speed (piii . 1400
Tolerance	+ Rack travel in mm : 10.00
cm3/1000 strokes : + 2.0	+ Tolerance mm : + 2.00
Check tolerance	Total de limit 2.00
cm3/1000s. : +- 4.5	
Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	T LOCK COMP. DESTREY, M. LOTE FORD 2106.
cm3/1000 strokes : 3.5	Rated speed rpm : 1300
Check tolerance	+ Aneroid pressure
cn3/1000s. : 5.5	
Chis/ (U003:	
	+ Del. quantity
(B) SETTING OF INJECTION PUMP	+ cm3/1000 strokes : 96.0
	Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : + 1.0
	+ Check tolerance
CUIDE OF FOUR TOWER	+ cm3/1000s. : +- 3.0
GUIDE SLEEVE TRAVEL	+ Spread
Detect aread non- 1 475/	+ Tolerance
Rated speed rpm : 1354	+ cm3/1000 strokes : 3.5
guide sleeve	+ Check tolerance
travel mm : 8.68	+ cm3/1000s. : 6.0
Tolerance mm : + 0.25	†
Rated speed rpm : 300	†
Rated speed rpm : 300 guide sleeve	CONTROL LEVED
travel mm : 1.40	+ CONTROL LEVER
	T control lever
Tolerance mm : +- 0.25	
Rated speed rpm : 881	position degree : 113.0
	tolerance degree : + 4.0
guide sleeve travel mm : 5.02	+ RATED SPEED
Tolerance mm : ← 0.25	+ rack travel mm : 11.95
Detail around non a 7/7	Rated speed rpm : 1345
Rated speed rpm : 363	Tolerance 1/min : +- 5
guide sleeve	1
travel mm : 2.05	rack travel mm : 4.00
Tolerance ma : + 0.25	Rated speed rpm : 1470
Date of an end name at 147	+ Tolerance 1/min : + 15
Rated speed rpm : 413	1
guide sleeve	+ rack travel mm : 0.50
travel mm : 2.44	+ Tolerance mm : + 0.50
Tolerance mma : ← 0.25	Rated speed rpm : 1550
Dated around som a 500	†
Rated speed rpm : 500	T
guide sleeve travel mm : 2.99	T
travel mm : 2.99	T

LOW IDLE

control lever

position degree : 80.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. :> 8.20

Testing:

Rated speed rpm : 300 rack travel mm : 7.15

Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1300 rack travel mm : 12.95 Tolerance mm : + 0.05

Rated speed rpm : 750 rack travel mm : 12.95 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1000
rack travel mm : 12.95
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : Tolerance mm : + 0.05

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 350 rack travel mma : 1.70 Tolerance mm : + 0.15

Pressure hPa : 200 rack travel mm : 0.40 Tolerance mm : + 0.05

Start interlock

Rated speed rpm :> 100 Rated speed rpm :< 220

Check

speed 1/min :> 80 Check speed 1/min :< 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1000 Rated speed rpm : 750

Del. quantity cm3/1000 strokes : 86.0

Tolerance cm3/1000 strokes : +- 2.0 Check tolerance

cm3/1000S. : ← 4.0 Spreed Tolerance

cm3/1000 strokes : 5.0 Check tolerance

cm3/1000s. : 7.0

Aneroid pressure hPa :

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 42.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : +- 5.0

Check tolerance

cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm	:		7.15
Tolerance mm	:	+	0.10
Del. quantity cm3/1000 strokes			12.0
Tolerance	:		12.0
cm3/1000 strokes		_	2.0
Check tolerance	•	•	2.0
cm3/1000s.	:	+	4.5
Spreed	Ĭ		,,,,
Tolerance			
cm3/1000 strokes	:		3.5
Check tolerance			
cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15,12,97 : ISO 4113

Combination No. : 0 403 446 310

Injection pump

Pump designation : PES6MW100/320RS1227Z

EP type number : 0 413 406 217

Governor

Governer design. : RQV325...1300MW126

Governer no.

: 0 420 083 279

Cust. part No. : 1249952

Customer-spec. information

Customer

: DAF

Motor

: NS133L

Power KW

: 133.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

208.5

bar Tolerance bar

: + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

2.0

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

31.0 Test pressure bar : 31.0 Tolerance bar : + 1.0 Test pressure bar :

Prestroke mm 3.05 : +- 0.05 Tolerance mm

Check

tolerance mm z + 0.30

Rack travel in mm: 13.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

Tolerance : +- 0.50

Check tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 11.85 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 94.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: +- 3.0

Tolerance cm3/1000 strokes : 3.5	- - Rated speed rpm : 1600 - guide sleeve
Check tolerance cm3/1000s. : 6.0	travel mm : 11.50 Tolerance mm : + 0.50
Rated speed rpm : 325	GUIDE SLEEVE POSITION
Rack travel in mm: 4.50	- - control lever
Tolerance man : + 0.10	- control lever - position degree : - 1
Del. quantity	- Rated speed rpm : 1350
cm3/1000 strokes : 9.0	- Mater opeca i più i 1000
Tolerance	- Rack travel in mm : 16.50
cm3/1000 strokes : +- 2.0	- Tolerance mm : +- 1.30
Check tolerance	•
cm3/1000s. : + 4.5	
Spreed	- FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	. D-A - d - m - A - m - A - M - A - M - M - M - M - M - M - M
cm3/1000 strokes : 3.5 + Check tolerance	- Rated speed rpm : 1000
cm3/1000s. : 5.5	- Aneroid pressure - hPa : 1000
I 3.5	Del. quantity
<u></u>	- cm3/1000 strokes : 94.5
(B) SETTING OF INJECTION PUMP	- Tolerance
WITH GOVERNOR	- cm3/1000 strokes : + 1.0
+	- Check tolerance
+	- cm3/1000s. : +- 3.0
GUIDE SLEEVE TRAVEL	- Spreed
Dated and days at 4771	- Tolerance
Rated speed rpm : 1334 + guide sleeve +	- cm3/1000 strokes : 3.5 - Check tolerance
travel mm : 8.48	- cm3/1000s. : 6.0
Tolerance mas : + 0.25	-
•	•
Rated speed rpm : 325	
guide steeve +	- CONTROL LEVER
travel mm : 1.67	•
Tolerance mm : + 0.25	- control lever
Rated speed rpm : 872	- position degree : 122.0 - tolerance degree : +- 4.0
guide sleeve	- toter arice degree , , 4.0
travel mm : 4.97	- RATED SPEED
Tolerance mm : +- 0.25	rack travel mm : 10.85
+	- Rated speed rpm : 1332
Rated speed rpm : 363	- Tolerance 1/min : +- 8
guide steeve	
travel mm : 2.05 + Tolerance mm : + 0.25 +	- rack travel mm : 4.00 - Rated speed rom : 1455
Toterance min : 0.25	- Rated speed rpm : 1455 - Tolerance 1/min : +- 15
Rated speed rpm : 413	· TOLET GITCE TAIRLIST.
guide sleeve	rack travel mm : 0.50
travel mm : 2.50	Tolerance mm : +- 0.50
Tolerance mm : + 0.25	- Rated speed rpm : 1550
 	
Rated speed rpm : 490	•
guide sleeve	•

control lever position degree tolerance degree	: 82.0 : +- 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 225
CRT mm min.	: > 6.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 4.50 : + 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1000 : 11.85 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 11.85 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 600 : 1000 : 11.85 : ← 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 600 : 290 : 11.25 : ← 0.05
MEASUREMENT	
Rated speed rpm	: 600
	_
Pressure hPa rack travel mm Tolerance mm	9.90 : +- 0.10

Aneroid pressure hPa Rated speed rpm	: 1000 : 1300
Del. quantity cm3/1000 strokes Tolerance	: 92.0
cm3/1000 strokes Check tolerance	: + 1.5
cm3/1000s. Spreed	: + 4.0
Tolerance	: 5.0
Check tolerance	: 7.0
CIRS7 10003:	. 7.0
Aneroid pressure	
Rated speed rpm Del. quantity	: 600
cm3/1000 strokes	: 63.0
cm3/1900 strokes Check tolerance	: + 1.0
cm3/1000s.	: + 3.0

-	TDI	-
/ N.	1 174	_
1.70	1 1/1	_

Rated speed rpm	:		325
Rack travel in mm Tolerance mm Del. quantity	:	+	4.50 0.10
cm3/1000 strokes	:		9.0
Tolerance cm3/1000 strokes	:	+-	2.0
Check tolerance cm3/1000s. Spr ee d	:	+	4.5
Tolerance cm3/1000 strokes	:		3.5
Check tolerance cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 466 156

Injection pump

Pump designation : PES6MW100/120RS1238

EP type number : 0 413 406 237

Governor

Governer design. : RSV450...1100MW2A374

6overner no. : 0 420 085 257

Cust. part No. : 3926881

Customer-spec. information

: CDC Customer

Motor : 6 CT-830 Power KW : 160.0

TEST BENCH REQUIREMENTS

Test of inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 har : +- 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke ma Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerence mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50 Check

tolerance *NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 8.00 Tolerence : + 0.50

Check

tolerance *NW : **←** 0.75

Barrel no.

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.00 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 143.0

Tolerance	+ Tolerance
cm3/1000 strokes : + 1.0	+ cm3/1000 strokes : +- 1.0
CHEST TOOC SET ONCS T.O	Check tolerance
Check tolerance	
$cm3/1000s.$: \leftarrow 4.0	+ Spreed
	+ Tolerance
Spreed	+ cm3/1000 strokes : 4.0
	+ Check tolerance
Tolerance	+ cm3/1000s. : 7.5
cm3/1000 strokes : 4.0	+
	+
Check tolerance	
cm3/1000s. : 7.5	+ CONTROL LEVER
	1 CONTINUE ELIVERY
	+ control lever
Rated speed rpm : 450	position degree : 104.0
Rated speed rpm : 450	tolerance degree : + 4.0
Doub Annual Survey P 20	
Rack travel in mm: 5.30	+ RATED SPEED
Tolerance min : +- 0.20	+ rack travel mm : 10.90
Del. quantity	+ Rated speed rpm : 1150
cm3/1000 strokes : 12.0	+ Tolerance 1/min : + 5
Tolerance	+
cm3/1000 strokes : + 2.0	+ rack travel mm : 4.00
Check tolerance	+ Rated speed rpm : 1265
cm3/1000s. : + 4.5	+ Tolerance 1/min : + 15
Spreed	Toterance man 15
Tolerance	mark travel on a COS
	rack travel mm : 0.85
cm3/1000 strokes : 3.5	+ Tolerance mm : + 0.55
Check tolerance	+ Rated speed rpm : 1375
cm3/1009s. : 5.5	+
	+ rack travel mm : 4.00
	+ Rated speed rpm : 1275
(B) SETTING OF INJECTION PUMP	+ Tolerance 1/min : + 15
WITH GOVERNOR	+
	‡
GUIDE SLEEVE POSITION	LOW IDLE
	I
control lever	I control lover
control tever	t control lever
position degree : - 3 Rated speed rpm : 800	position degree : 82.0
Kated speed rpm : 800	tolerance degree : +- 4.0
	†
Rack travel in mm : 0.65	+ Setting point w/out bumper spring
Tolerance mm : +- 0.35	+
	+ Rated speed rpm : 450
	+ rack travel mm : 4.80
governor spring	T I COLL LICENTEL IN THE COLUMN TO THE COLUMN TO THE COLUMN THE COLUMN TO THE COLUMN T
governor spring pre-tension	
pre-tension	Tolerance mm : + 0.10
pre-tension	Tolerance mm : + 0.10
pre-tension	
pre-tension click setting x : 4.75	Tolerance mm : + 0.10 Rated speed rpm : 100
pre-tension click setting x : 4.75	Tolerance mm : + 0.10
pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50
pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100	Tolerance mm : + 0.10 Rated speed rpm : 100
pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Ameroid pressure	Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50
pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure	Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing:
pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure hPa : 1100	Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 450
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure	Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing:

TORQUE CONTROL 1100 Rated speed rpm : rack travel mm 12.00 : +- 0.05 Tolerance ma

Rated speed rpm : 750 rack travel mm 12.40 : + 0.10 Tolerance am

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1100 rack travel mm 12.45 Toterance mm : **←** 0.05

Rated speed rpm 500 : Pressure hPa rack travel me 10.40 Tolerance mm : +- 0.05

MEASUREMENT

500 Rated speed rpm

850 Pressure hPa : rack travel ma 12.00 : + 0.20Tolerance mm

Pressure hPa 625 rack travel mm 11.00 : + 0.10Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa 1100 Rated speed rpm 750 Del. quantity cm3/1000 strokes : 154.0 Tolerance

cm3/1000 strokes : +-

Check tolerance

cm3/1000s. 5.0

2.0

Spreed Tolerance

cm3/1000 strokes : 6.0 Check tolerance

cm3/1000s. 9.0 Aneroid pressure

Rated speed rpm 500 Del. quantity

cm3/1000 strokes : 115.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +-4.0

STARTING FUEL DELIVERY

Check hydraulic start locking and unlocking device with 500...1000 hPa.

100 Rated speed rpm : rack travel mm 20.00 : : + 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 170.0 Tolerance

cm3/1000 strokes : \leftarrow 10.0 Check tolerance

cm3/1000s. : + 13.0

LOW IDLE

Rated speed rpm : 450

Rack travel in mm : Tolerance mm 0.20

Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : +-2.0 Check tolerance

cm3/1000s. : +-4.5

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 : ISO 4113 Test oil

Combination No. : 0 403 474 008H

Injection pump

Pump designation : PES4MW100/720RS1181 EP type number : 0 413 404 107

Governor

Governer design. : RSV400...1000MW1A333

Governer no. : 0 420 085 118

Cust. part No. :

Customer-spec. information Customer : LIEBHERR : D 914 T Motor

Power kW : 106.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 : +-Tolerance °C 2.0

Overflow valve : 1 417 413 049

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 600 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm 3.05 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : **←** 1.50

: 1-3-4-2 Firing order

: 0-90-180-270 Phasing

Tolerance : + - 0.50

Check

tolerance *NW : +~ 0.75

BASIC SETTING

1000 Rated speed rpm :

Rack travel in mm: 10.65 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 137.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 4.0

Spreed

Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 7.5

Rated speed rpm	: 400	control lever position degree : 103.0 tolerance degree : +- 4.0
micca opeca . p.a	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	totel and degree 4.0
Rack travel in mm		RATED SPEED
Tolerance mm	: ← 0.10	rack travel mm : 9.65
Del. quantity		Rated speed rpm : 1025
cm3/1000 strokes	: 22.0	Tolerance 1/min : + 5
Tolerance cm3/1000 strokes		
Check tolerance	: - 2.0	rack travel mm : 4.00
cm3/1000s.	: + 4.5	Rated speed rpm : 1065 Tolerance 1/min : +- 10
Spreed	• ' • • •	I loterance intent
Tolerance		rack travel mm : 1.00
cm3/1000 strokes	: 3.5	Tolerance mm : + 0.70
Check tolerance		Rated speed rpm : 1175
cm3/1000s.	: 5.5	- Aller Speed April
	-	rack travel mm : 4.00
	4	Rated speed rpm : 1065
(B) SETTING OF IN	JECTION PUMP -	Tolerance 1/min : + 15
WITH GOVERNOR		
	-	-
GUIDE SLEEVE POSI	TION	LOW IDLE
	-	
control lever	_	control lever
position degree	: - 3	position degree : 76.0
Rated speed rpm		tolerance degree : +- 4.0
Rack travel in mm	· 0.65	Setting point w/out bumper spring
Tolerance nm	: ← 0.35	L secting point wood bumper spring
100010100 101		Rated speed rpm : 400
governor spring		rack travel mm : 5.25
pre-tension	4	Tolerance mm : + 0.10
click setting x	: 4.00	
		Rated speed rpm : 100
FULL LOAD DELIVER	Y AT FULL LOAD STOP	CRT man กลำก. :> 19.00
Dadad amad ma	. 1000	t Tanking.
Rated speed rpm Aneroid pressure	: 1000	Testing:
hPa		Rated speed rpm : 400
Del. quantity	•	rack travel mm : 6.25
cm3/1000 strokes	: 137.5	Tolerance mm : + 0.10
Tolerance	. , , , , ,	10(6) 11/100 (11/11)
cm3/1000 strokes	: ← 1.0	
Check tolerance	-	TORQUE CONTROL
cm3/1000s.	: ← 4.0	Rated speed rpm : 1000
Spreed	4	rack travel mm : 10.65
Tolerance	<u> </u>	Tolerance mm : + 0.05
cm3/1000 strokes	: 4.0	
Check tolerance	ج ۽	Rated speed rpm : 500
cm3/1000s.	: 7.5	rack travel mm : 10.65
	1	Tolerance mm : + 0.05
		Poted coard non . 700
CONTROL LEVER		Rated speed rpm : 700 rack travel mm : 10.65
COLLINOF FEATIV	7	L INCK CLUACE MAN . 10.03

Tolerance mm	: ← 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	and the state of t
hPa Rated speed rpm	500
Del. quantity	• 500
cm3/1000 strokes	: 130.0
Tolerance cm3/1000 strokes	: + 2.0
Check tolerance	ζ.υ
cm3/1000s.	: ← 5.0
Spreed	
Tolerance cm3/1000 strokes	: 6.0
Check tolerance	. 0.0
cm3/1000s.	: 9.0
Aneroid pressure	
hPa	: -
Rated speed rpm	: 700
rack travel mm Tolerance mm	: 10.65 : + 0.05
Del. quantity	• 0.05
cm3/1000 strokes	: 141.5
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance	: ← 2.0
cm3/1000s.	: + 5.0
STARTING FUEL DEL	IVERY
Rated speed rpm	i 100
rack travel mm Tolerance mm	: 20.00 : ← 1.00
Del. quantity	. ~ 1,00
cm3/1000 strokes	: 135.0
Toterance	
cm3/1000 strokes Check tolerance	: ← 5.0
cm3/1000s.	: + 8.0
LOW IDLE	

Del. quantity		
cm3/1000 strok Tolerance	es :	22.0
cm3/1000 strok	es : +-	2.0
Check tolerand	e .	, -
cm3/1000s. Spreed	: +-	4.5
Tolerance		
cm3/1000 strok		3.5
Check tolerand cm3/1000s.	:e	5.5

Rated speed rpm : 400

Rack travel in mm: 6.25
Tolerance mm : + 0.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.12.97 : ISO 4113

Combination No. : 0 403 474 016

Injection pump

Pump designation : PES4MW100/720RS1212 EP type number : 0 413 404 114

Sovemor

Governer design. : RSV350...1300MW0A346

Governer no. : 0 420 085 175

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA : 102.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar

: **←** 1.5

Test Lines

: 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : +-1.0

Prestroke mm 3.75 : + 0.05Tolerance mm

Check

tolerance non : ← 0.10

Rack travel in ma: 10.50 : ← 1.50 Tolerance num

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.25 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 104.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.

: + 3.0

Tolerance +	
cm3/1000 strokes : 3.5	CONTROL LEVER
Check tolerance + cm3/1000s. : 6.0	control lever
CHD/10003 0.0	
<u> </u>	position degree : 108.0
, 1	tolerance degree : + 4.0
Rated speed rpm : 350 Del. quantity	RATED SPEED
cm3/1000 strokes : 12.0	rack travel mm : 1.00 Tolerance mm : + 0.70
cn3/1000 strokes : + 2.0	Rated speed rpm : 1500
Check tolerance	Rated speed rpm : 1500
cm3/1000s. : + 4.5	rack travel mm : 4.00
Spreed	Rated speed rpm : 1425
Tolerance	Tolerance 1/min : +- 15
cm3/1000 strokes : 3.5	
Check tolerance	rack travel mm : 12.20
cm3/1000s. : 5.5	Rated speed rpm : 1353
1	Tolerance 1/min : + 8
Ţ	roce; dice i/min . +- 0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	ASSEMBLY GOVERNOR SETTING
+	Rated speed rpm : 1340
+	rack travel mm : 12.25
GUIDE SLEEVE POSITION +	Rated speed rpm : 1384
+	Tolerance 1/min : + 4
+	rack travel mm : 4.00
control lever	
position degree : -3	
Rated speed rpm : 800	Rated speed rpm : 1341
1	rack travel mm : 12.25
Rack travel in mm: 0.65	
Tolerance mm : +- 0.35	Rated speed rpm : 1385
	Tolerance 1/min : + 4
governor spring	rack travel mm : 4.00
pre-tension +	1 00K 61 0466 11MII . 4.00
click setting x : 4.00	
T T	Rated speed rpm : 1342
	Rated speed rpm : 1342 rack travel mm : 12.25
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travet min : 12.25
The same appropriate to the same of the sa	Rated speed rpm : 1386
Rated speed rpm : 1300	Tolerance 1/min : + 4
Aneroid pressure	rack travel mm : 4.00
hPa : 700	I GUN LI GVEL HIRK . 4.UU
Del. quantity + cm3/1000 strokes : 104.0 +	Dahad annual annual 47/7
	Rated speed rpm : 1343
Tolerance +	rack travel mm : 12.25
cm3/1000 strokes : + 1.0 +	2 4 4 1
Check tolerance	Rated speed rpm : 1387
cm3/1000s. : + 3.0	Tolerance 1/min : + 4
Spreed	rack travel mm : 4.00
Tolerance	
cm3/1000 strokes : 3.5	
Check tolerance	Rated speed rpm : 1344
cm3/1000s. : 6.0	rack travel mm : 12.25
+	
+	Rated speed rpm : 1388

Tolerance 1/min : +- 4 rack travel mm : 4.00 Rated speed rpm : 1345 rack travel mm : 12.25 1389 Rated speed rpm : Tolerance 1/min : + 4 rack travel mm : 4.00 LOW IDLE Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 6.40
Tolerance mm : + 0.40 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: rack travel mma : 2.00
Rated speed rpm : 460
Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 13.25
Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 13.25 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 13.25 Tolerance mm : +- 0.10 Rated speed rpm : 500 Pressure hPa : - 0.05 Tolerance mm MEASUREMENT Rated speed rpm : 500

Pressure hPa : 400
rack travel mm : 2.55
Tolerance mm : + 0.10

Pressure hPa : 200
rack travel mm : 0.85
Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	700
Rated speed rpm	:	600
Del. quantity		
cm3/1000 strokes	:	93.0
Tolerance		
cm3/1000 strokes	: ⊹	1.5
Check tolerance		
cm3/1000s.	; +-	4.0
Spreed		
Tolerance		
cm3/1000 strokes	•	5.0
Check tolerance		
cm3/1000s.	•	7.0

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 37.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 90.0
Tolerance
cm3/1000 strokes : + 5.0
Check tolerance
cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 350
Del. quantity
cm3/1000 strokes : 12.0

Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.12.97 Edition Test oil : ISO 4113

Combination No. : 0 403 474 019

Injection pump

Pump designation : PES4MW100/720RS1151

EP type number : 0 413 404 104

Governor

Governer design. : RSV350...1200MW0A346

: -3

: 0 420 085 179 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : OM 364 A Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar ; + 1.5 Tolerance bar

: 1 680 750 089 Test lines

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.75 : +- 0.05 Tolerance mm Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.55 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 88.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

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t	
Check tolerance cm3/1000s. : 6.0	CONTROL LEVER
Rated speed rpm : 350	<pre>control lever position degree : 108.0 tolerance degree : +- 4.0</pre>
Rack travel in ma : 6.40	RATED SPEED
Tolerance mm : +- 0.40 +- Del. quantity +- cm3/1000 strokes : 12.0 +-	rack travel mm : 1.00 Tolerance mm : + 0.70
Tolerance + 2.0 +	Tolerance mm : +- 0.70 Rated speed rpm : 1450
Check tolerance cm3/1000s. : +- 4.5	rack travel mm : 4.00 Rated speed rpm : 1340 Tolerance 1/min : +- 15
Spreed Tolerance cm3/1000 strokes : 3.5	Tolerance 1/min : +- 15 rack travel mm : 10.50
Check tolerance cm3/1000s. : 5.5	Rated speed rpm : 1248 Tolerance 1/min : +- 8
(B) SETTING OF INJECTION PUMP	ASSEMBLY GOVERNOR SETTING
WITH GOVERNOR +	Rated speed rpm : 1240 rack travel mm : 10.50
GUIDE SLEEVE POSITION	Rated speed rpm : 1289 Tolerance 1/min : + 4 rack travel mm : 4.00
control lever position degree : -3 Rated speed rpm : 800	Rated speed rpm : 1241 rack travel mm : 10.50
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 1290 Tolerance 1/min : +- 4 rack travel mm : 4.00
governor spring pre-tension click setting x : 5.75	Rated speed rpm : 1242 rack travel mm : 10.50
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure	Rated speed rpm : 1291 Tolerance 1/min : +- 4 rack travel mm : 4.00
hPa : 700 + Del. quantity cm3/1000 strokes : 88.0 +	Rated speed rpm : 1243 rack travel mm : 10.50
Tolerance + 1.0 + 1.0	Rated speed rpm : 1292
Check tolerance cm3/1000s. : + 3.0 + Spreed	Tolerance 1/min : +- 4 rack travel mm : 4.00
Tolerance + cm3/1000 strokes : 3.5 + Check tolerance +	Rated speed rpm : 1244 rack travel mm : 10.50
cm3/1000s. : 6.0	Rated speed rpm : 1293

Tolerance 1/min rack travel am 4.00 Rated speed rpm : 1245 rack travel and 10.50 Rated speed rom 1294 Tolerance 1/min : +rack travel mm 4.00 LOW IDLE Setting point w/out bumper spring Rated speed rpm 100 CRT me min. : > 19.00 Testing: Rated speed rpm 350 rack travel mm 6.40 : + 0.40 Tolerance mm TORQUE CONTROL 1200 Rated speed rom rack travel mm : 11.55 Tolerance mm : +- 0.05 Rated speed rpm 600 rack travel mm 12.40 Tolerance mm : +- 0.10 Rated speed rpm 1000 : 12.00 rack travel mm Tolerance ma : + - 0.10ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm Pressure hPa 700 rack travel mm 12.40 Tolerance mm : + 0.10500 Rated speed rom : Pressure hPa Tolerance mm : + 0.05MEASUREMENT

Pressure hPa 375 rack travel mm 1.70 Tolerance mm : + 0.10Pressure hPa 200 0.50 rack travel mm : + 0.10Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure 700 Rated speed rpm 600 Del. quantity cm3/1000 strokes : 87.0 Tolerance cm3/1000 strokes : + 1.5Check tolerance cm3/1000s. : +-4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s.7.0 rack travel mm 12.00 Tolerance mm : + 0.10Aneroid pressure 500 Rated speed rpm Del. quantity cm3/1000 strokes : 48.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. 3.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. : +-8.0

LOW IDLE

Rated speed rpm : 500

Rated speed rpm	:	350
Rack travel in mm	:	6.40
Tolerance mm Del. quantity	: +-	0.40
cm3/1000 strokes	:	12.0
Tolerance cm3/1000 strokes	· +-	2.0
Check tolerance	•	
cm3/1000s. Spreed	: +-	4.5
Tolerance		
cm3/1000 strokes Check tolerance	:	3.5
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97

Test oil : ISO 4113

Combination No. : 0 403 474 021D

Injection pump

Pump designation : PES4MW100/720RS1181

EP type number : 0 413 404 107

Governor

Governer design. : RSV400...1000MW1A348

60verner no. : 0 420 085 183

Cust. part No. :

Customer—spec. information Customer : LIEBHERR

Motor : D914T Power KW : 106.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 049

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0
Tolerance bar : + 1.0

Prestroke mm : 3.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 10.65

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 137.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. : 7.5

Rated speed rpm	: 400
·	
Rack travel in mm Tolerance mm	: 5.25 : + 0.10
Del. quantity	0.10
cm3/1000 strokes	: 22.0
Tolerance	
cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000s.	: +- 4.5
Spreed	• +- 4.5
Tolerance	
cm3/1000 strokes	: 3.5
Check tolerance	. 50
cm3/1000s.	: 5.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSIT	LION
control lever	
position degree	
Rated speed rpm	: 800
Rack travel in mm Tolerance mm	: 0.65 : + 0.35
governor spring	
pre-tension	
click setting x	: 4.00
FULL LOAD DELIVERY	Y AT FULL LOAD STOP
Rated speed rpm	: 1000
Aneroid pressure	. 4250
hPa Del. quantity	: 1250
cm3/1000 strokes	: 137.5
Tolerance	
cm3/1000 strokes	: + 1.0
cm3/1000 strokes Check tolerance	
cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 4.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 4.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + 4.0 : 4.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: + 4.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + 4.0 : 4.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + 4.0 : 4.0

: 103.0 : + 4.0
: 9.65 : 1025 : + 5
: 4.00 : 1065 : + 10
: 1.00 : + 0.70 : 1175
: 4.00 : 1065 : + 10

1	ALL	TNI	

control lever		
position degree	:	76.0
tolerance degree	: +-	4.0

Setting point w/out bumper spring

Rated speed rpm	:	400
rack travel mm	:	6.25
Tolerance mm	: +	- 0.10

Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpm	:	400
rack travel mm	:	5.25
Tolerance mm	: +	-0.10

TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1000 : 10.65 : + 0.05
Rated speed rpm	: 500
rack travel mma	: 10.65
Tolerance mma	: ← 0.05
Rated speed rpm	: 700
rack travel mm	: 10.65

Tolerance mm	: ← 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.20 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1250 : 10.65 : + 0.05
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 420 : 10.30 : ← 0.05
Pressure hPa rack travel mm Tolerance mm	: 460 : 10.55 : ← 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1250 : 500
cm3/1000 strokes Tolerance	: 130.0
cm3/1000 strokes Check tolerance	: ← 2.0
cm3/1000s. Spreed	: ← 5.0
Tolerance cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Aneroid pressure hPa Rated speed rpm	: 1250 : 700 : 10.65
rack travel mm Tolerance mm Del. quantity	: + 0.05

Tolerance cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000s.	: +-	5.0
Aneroid pressure		

Aneroid pressure hPa	:		_
Rated speed rpm	:		500
Del. quantity cm3/1000 strokes Tolerance	:		127.5
cm3/1000 strokes Check tolerance	:	+	1.0
cm3/1000s.	:	+-	4.0

STARTING FUEL DELIVERY

ESS test: With 24 V solenoid activated, rack must reach start position in max. control lever setting.

Kated speed rpm	:	100
rack travel mm	:	20.00
Tolerance mm	: +-	1.00
Del. quantity		
cm3/1000 strokes	:	135.0
Tolerance		
cm3/1000 strokes	: +-	5.0
Check tolerance		
cm3/1000s.	: +-	8.0

LOW IDLE

Rated speed rpm	•	400
Rack travel in mm Tolerance mm	: +	5.25 - 0.10
Del. quantity cm3/1000 strokes Tolerance	:	22.0
cm3/1000 strokes Check tolerance	: +	- 2.0
cm3/1000s. Spreed	: +-	- 4.5
Tolerance cm3/1000 strokes Check tolerance	:	3.5
cm3/1000s.	:	5.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 476 027

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1300MWOA316

: -6

Governer no. : 0 420 085 098

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : OM366A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C : 40
Tolerance *C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

- 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.50

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 10.75 Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 73.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Spreed

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Tolerance +	
cm3/1000 strokes : 3.5	
+	CONTROL LEVER
Check tolerance	A
cm3/1000s. : 6.0	control lever
	position degree : 110.0
1	tolerance degree : +- 4.0
Rated speed rpm : 350	RATED SPEED
Del. quantity	MATED OF CED
cm3/1000 strokes : 10.0	rack travel mm : 1.00
Tolerance	Tolerance mm : +- 0.70
$cm3/1000$ strokes : \leftarrow 2.0	Rated speed rpm : 1450
Check tolerance	·
cm3/1000s. : +- 4.5	rack travel mm : 4.00
Spreed +	Rated speed rpm : 1415
Tolerance	Tolerance 1/min : +- 15
cm3/1000 strokes : 3.5	
Check tolerance	rack travel mm : 9.70
cm3/1000s. : 5.5	Rated speed rpm : 1353
1	Tolerance 1/min : +- 8
(B) SETTING OF INJECTION PUMP	ASSEMBLY GOVERNOR SETTING
WITH GOVERNOR	Moderate Governon Servero
1	Rated speed rpm : 1340
4.	rack travel mm : 9.70
GUIDE SLEEVE POSITION +	Rated speed rpm : 1384
†	Tolerance 1/min : +- 4
Total Company	rack travel mm : 4.00
control lever	
position degree : - 3 Rated speed rpm : 800	Rated speed rpm : 1341
Rated speed rpm . 000	Rated speed rpm : 1341 rack travel mm : 9.70
Rack travel in mm: 0.65	TOCK CTOVEC HAIR . 7.10
Tolerance mm : + 0.35	Rated speed rpm : 1385
	Tolerance 1/min : +- 4
governor spring	rack travel mm : 4.00
pre-tension +	
click setting x : 4.00 $+$	
+	Rated speed rpm : 1342
	rack travel mm : 9.70
FULL LOAD DELIVERY AT FULL LOAD STOP	Dated arred may 470/
Rated speed rpm : 1300	Rated speed rpm : 1386 Tolerance 1/min : +- 4
Rated speed rpm : 1300 + Ameroid pressure +	Tolerance 1/min : +- 4 rack travel mm : 4.00
hPa : -	rack travectum. 4.00
Del. quantity	
cm3/1000 strokes : 73.0	Rated speed rpm : 1343
Tolerance	rack travel mm : 9.70
cm3/1000 strokes : + 1.0	
Check tolerance	Rated speed rpm : 1387
cm3/1000s. : + 3.0	Tolerance 1/min : +- 4
Spreed	rack travel mm : 4.00
Tolerance	
cm3/1000 strokes : 3.5	- · · · · · · · · · · · · · · · · · · ·
I DOCK TOLOROPCO	
Check tolerance	Rated speed rpm : 1344
cm3/1000s. : 6.0	Rated speed rpm : 1344 rack travel mm : 9.70

Tolerance 1/min : + 4 rack travel mm : 4.00 Ratted speed rpm : 1345 rack travel mm : 9.70	Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 7.0
rack travel mm : 9.70 Rated speed rpm : 1389 Tolerance 1/min : + 4 rack travel mm : 4.00	Aneroid pressure hPa : - Rated speed rpm : 825 rack travel mm : 12.00 Tolerance mm : + 0.10 Del. quantity
LOW IDLE	cm3/1000 strokes : 74.0
Setting point w/out bumper spring	cm3/1000 strokes : +- 1.5 Check tolerance
Rarted speed rpm : 350 rack travel mm : 7.30 Tolerance mm : + 0.30	cm3/1000s. : + 4.0
Rated speed rpm : 100	STARTING FUEL DELIVERY
CRT mm min. :> 19.00	Rated speed rpm : 100 Del. quantity
Testing: rack travel mm : 2.00	cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : +- 5.0
Rated speed rpm : 475	+ Check tolerance
Tolerance 1/min : + 30	cm3/1000s. : +- 8.0
TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.75 Tolerance mm : + 0.05 Rated speed rpm : 700 rack travel mm : 12.35 Tolerance mm : + 0.05 Rated speed rpm : 825	LOW IDLE Rated speed rpm : 350 Del. quantity cm3/1000 strokes : 10.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance
rack travel mm : 12.00 Tolerance mm : + 0.10	- cm3/1000s. : + 4.5 - Spreed - Tolerance - cm3/1000 strokes : 3.5
FUEL DELIVERY CHARACTERISTICS	Check tolerance cm3/1000s. : 5.5
Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 70.0 Tolerance cm3/1000 strokes : + 1.5	End of test specification sheet
Check tolerance cm3/1000s. : +- 4.0 Spreed	‡

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 476 055

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1200MW0A316

: -8

Governer no. : 0 420 085 097

Cust. part No. :

Customer spec. information Customer : MB-NFZ Motor : OM366A Power KW : 92.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : ← 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0
Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 9.85 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 63.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

E14

Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance + cm3/1000s. : 6.0 +	
	CONTROL LEVER
Ratted speed rpm : 350	<pre>control lever position degree : 102.0 tolerance degree : +- 4.0</pre>
Rack travel in mm: 6.60	
Tolerance mm : + 0.30 + Del. quantity +	RATED SPEED
cm3/1000 strokes : 10.0	rack travel mm : 1.00
Tolerance	Tolerance mm : + 0.70
cm3/1000 strokes : + 2.0 +	Rated speed rpm : 1450
Check tolerance + 4.5	analy Annual and a 1 00
cm3/1000s. : + 4.5 + 5	rack travel mm : 4.00 Rated speed rpm : 1315
Tolerance	Tolerance 1/min : +- 15
cm3/1000 strokes : 3.5	
Check tolerance	rack travel mm : 8.80
cm3/1000s. : 5.5	Rated speed rpm : 1253 Tolerance 1/min : +- 8
I	Tolerance 1/min : +- 8
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	ASSEMBLY GOVERNOR SETTING
†	Rated speed rpm : 1235
<u> </u>	rack travel mm : 8.80
GUIDE SLEEVE POSITION	Rated speed rpm : 1274
+	Tolerance 1/min : + 4
· †	rack travel mm : 4.00
control lever + position degree : - 3	
Rated speed rpm : 800	Rated speed rpm : 1236
1	rack travel mm : 8.80
Rack travel in mm: 0.65	
Tolerance mm : \leftarrow 0.35	Rated speed rpm : 1275
governor spring +	Tolerance 1/min : +- 4 rack travel mm : 4.00
pre-tension	TOUR CHAVEC HAN . T.OU
click setting x : 4.00	
†	Rated speed rpm : 1237
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 8.80
+	Rated speed rpm : 1276
Rated speed rpm : 1200	Tolerance 1/min : + 4
Aneroid pressure	rack travel mm : 4.00
hPa : - + Del. quantity +	
cm3/1000 strokes : 63.0	Rated speed rpm : 1238
Tolerance	rack travel mm : 8.80
cm3/1000 strokes : +- 1.0 +	
Check tolerance	Rated speed rpm : 1277
cm3/1000s. : + 3.0 + 5preed	Tolerance 1/min : + 4 rack travel mm : 4.00
Tolerance	INCOME THE . 4.00
cm3/1000 strokes : 3.5	
1	Rated speed rpm : 1239

rack travel mm	: 8.80	
Rated speed rpm Tolerance 1/min	: 1278 : + 4 : 4.00	
rack travel mm	: 4.00	
Rated speed rpm rack travel mm		
Rated speed rpm		
Tolerance 1/min rack travel mm		
LOW IDLE		
Setting point w/d	out bumper spring	
Rated speed rpm	: 100	
CRT mm main.	: > 19.00	
Testing:		
Rated speed rpm rack travel mm	: 350 : 6.60	
Tolerance mm	: + 0.30	
rack travel mm		
Rated speed rpm Tolerance 1/min		
TORQUE CONTROL		
Rated speed rpm rack travel mm	: 1200 : 9.85	
Tolerance mm	: ← 0.05	
Rated speed rpm rack travel mm	: 800 : 10.75	
Tolerance mm	: 10.75 : +- 0.05	
Rated speed rpm		
rack travel mm Tolerance mm	: 10.20 : ← 0.10	
FUEL DELIVERY CHARACTERISTICS		
Aneroid pressure		
hPa Rated speed rpm	: - : 800	
Del. quantity cm3/1000 strokes		
Tolerance		

Check tolerance cm3/1000s.	: +-	4.0	
Spreed			
Tolerance cm3/1000 strokes	:	5.0	
Check tolerance	•	٥.0	
cm3/1000s.	:	7.0	
rack travel mm Tolerance mm	:	10.20	-
	•	3.,0	
STARTING FUEL DELI	EVERY		
Rated speed rpm Del. quantity	:	100	
cm3/1000 strokes Tolerance	:	83.0	
cm3/1000 strokes	: +-	5.0	
	•		
Check tolerance cm3/1000s.	: +-	8.0	
Check tolerance cm3/1000s.	: +-	8.0	
Check tolerance	: +-	350	
Check tolerance cm3/1000s.	: +-	350 6.60	
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm	: +-	350	
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: +-	350 6.60	
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: +-	350 6.60 0.30	
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: +-	350 6.60 0.30 10.0	
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: +-	350 6.60 0.30 10.0 2.0	
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +-	350 6.60 0.30 10.0 2.0 4.5	
Check tolerance cm3/1000s. LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + : + : +	350 6.60 0.30 10.0 2.0	

Tolerance cm3/1000 strokes : + 1.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.12.97 : ISO 4113

Combination No. : 0 403 476 056

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1200MW0A316

: -5

Governer no.

: 0 420 085 090

Cust. part No. :

Customer-spec. information

Customer

: MB-NFZ

Motor

: 0M366A

Power KW

: 100.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: **←** 1.5

Test lines

: 1 680 750 015

Outside diameter: 6.0

E17

x inside diameter : 3.0

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +-

Prestroke mm 3.75 : +- 0.05 Tolerance mm

Check

: **←** 0.10 tolerance mm

Rack travel in mm: 10.50

Tolerance mm

: **←** 1.50

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : ← 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 10.25 Tolerance mm

: +- 0.05

Del. quantity

cm3/1000 strokes :

70.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: +- 3.0

Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000S. : 6.0
Check tolerance cm3/1000s. : 6.0	CONTROL LEVED
	CONTROL LEVER control lever
Rated speed rpm : 350	position degree : 102.0 tolerance degree : +- 4.0
Rack travel in mm: 6.40 + Tolerance mm: + 0.30 + Del. quantity	RATED SPEED
cm3/1000 strokes : 10.0 - Tolerance	rack travel mm : 1.00 Tolerance mm : +- 0.70
cm3/1000 strokes : + 2.0 + Check tolerance	Rated speed rpm : 1450
cm3/1000s. : + 4.5 Spreed Tolerance	rack travel mm : 4.00 Rated speed rpm : 1315 Tolerance 1/min : + 15
cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 9.20
cm3/1000s. : 5.0	Rated speed rpm : 1248 Tolerance 1/min : + 8
(B) SETTING OF INJECTION PUMP	ASSEMBLY GOVERNOR SETTING
WITH SOURING	Rated speed rpm : 1240 rack travel mm : 9.20
GUIDE SLEEVE POSITION	Rated speed rpm : 1284 Tolerance 1/min : +- 4
control lever	rack travel mm : 4.00
position degree : -3 Rated speed rpm : 800	Rated speed rpm : 1241
Rack travel in mm : 0.65 Tolerance mm : + 0.35	rack travel mm : 9.20 Rated speed rpm : 1285
governor spring	Tolerance 1/min : ← 4 rack travel mm : 4.00
pre-tension click setting x : 4.00	Rated speed rpm : 1242
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 9.20
Rated speed rpm : 1200	Rated speed rpm : 1286 Tolerance 1/min : +- 4
Aneroid pressure hPa : -	rack travel mm : 4.00
Del. quantity + cm3/1000 strokes : 70.0 + Tolerance +	Rated speed rpm : 1243 rack travel mm : 9.20
cm3/1000 strokes : + 1.0 - Check tolerance	Rated speed rpm : 1287
cm3/1000s. : + 3.0 + spreed	Tolerance 1/min : +- 4 rack travel mm : 4.00
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1244
Т	Have opeca (pill) IETT

rack travel mm	: 9.20	† Del. q
		+ cm3/10
Rated speed rpm	: 1288	+ Tolera
Tolerance 1/min	: + 4	+ cm3/10
rack travel mm		+ Check
		+ cm3/10
		Spreed
Rated speed rpm	: 1245	+ Tolera
rack travel mm	9.20	- cm3/10
THE CITY CE IN	. /	+ Check
Rated speed rpm	: 1289	- cm3/10
Tolerance 1/min	: +- 4	I (110)
rack travel mm	. , , , ,	<u> </u>
I GCK LIGACT WAR	. 4.00	T rack t
LOW IDLE		+ Tolera
TOM IDEE		· †
Cakking maint		Ť
setting point w/	out bumper spring	1 071077
5. 4 1	400	+ STARTI
Rated speed rpm	: 100	†
	. 40.00	Rated
CRT mm min.	: > 19.00	+ rack t
•		+ Tolera
Testing:		+ Del. q
		+ cm $3/10$
Rated speed rpm	: 350	+ Tolera
rack travel mm	: 6.40 : + 0.30	+ cm3/10
Tolerance mm	: ← 0.30	+ Check
		- cm3/10
rack travel am	: 2.00	1
Rated speed rom	: 445	
Rated speed rpm Tolerance 1/min	: ← 30	1
TO CET GITCE TANKIT	30	I
		+ LOW ID
TORQUE CONTROL	-	1
	: 1200	Rated
Rated speed rpm		T Karea
rack travel mm	, 10, <i>43</i>	T name to
Tolerance mm	: ← 0.05	+ Rack t
Dawad 1	. 000	Tolera
Rated speed rpm		+ Del. q
rack travel mm	: 11.15	+ cm3/10
Tolerance mm	: ← 0.05	+ Tolera
		+ cm3/10
Rated speed rpm	: 900	+ Check
rack travel mm	: 11.10	+ cm3/10
Tolerance mm	: ← 0.10	+ Spreed
		+ Tolera
Rated speed rpm	: 1050	+ cm3/10
rack travel mm	: 10.60	Check
Tolerance mm	: +- 0.10	+ cm3/10
		1
		1
		1
		Ι
FUEL DELIVERY CHA	ADACTEDISTICS	I
LOGE DEFTACKL CHA	JUNE LEUTO LTCO	I End -4
		+ End of
A		†
Aneroid pressure		†
hPa	: -	†
Rated speed rpm	: 800	+

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm	: 350
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: ← 0.30
cm3/1000s.	: 5.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15,12,97 Edition : ISO 4113 Test oil

Combination No. : 0 403 476 066

Injection pump

Pump designation : PES6MW100/720RS1130

EP type number : 0 413 406 122

Governor

Soverner design. : RSV350...1300MW0A318

: -5

: 0 420 085 100 Governer no.

Cust. part No.

Customer spec. information Customer : MB-NFZ : 0M 366 A Motor : 130.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 Tolerance bar : **←** 1.5

: 1 680 750 089 Test lines

Outside diameter : 8,0

E20

x inside diameter : 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3.75 : **←** 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1280

11.05 Rack travel in mm: : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: + 3.0 cm3/1000s.

Tolerance cm3/1000 strokes : 3.5 Check tolerance	Check tolerance cm3/1000s. : 6.0
cm3/1000s. : 6.0	
	CONTROL LEVER
Rated speed rpm : 350	control lever position degree : 109.0 tolerance degree : +- 4.0
Rack travel in mm: 8.00 Tolerance mm: + 0.10 Del. quantity	RATED SPEED : 10.00
cm3/1000 strokes : 11.0	Rated speed rpm : 1335 Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0	•
Check tolerance cm3/1000s. : + 4.5 Spreed	rack travel mm : 4.00 Rated speed rpm : 1415 Tolerance 1/min : + 15
Tolerance cm3/1000 strokes : 3.5	rack travel mma : 1.00
Check tolerance cm3/1000s. : 5.5	Tolerance mm : + 0.70 Rated speed rpm : 1560
cm3/1000s. : 5.5	. Kated speed rpm : 1500
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	•
GUIDE SLEEVE POSITION	control lever position degree : 79.0 tolerance degree : + 4.0
control lever position degree : -3 Rated speed rpm : 800	Setting point w/out bumper spring
ì	i
Rack travel in ma : 0.65	Rated speed rpm : 100
Rack travel in mm : 0.65 Tolerance mm : + 0.35	Rated speed rpm : 100 CRT mm min. : > 19.00
Tolerance mm : + 0.35 governor spring pre-tension	•
Tolerance mm : + 0.35 governor spring	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00
Tolerance mm : + 0.35 governor spring pre-tension	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00 Tolerance mm : + 0.10
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1280 Aneroid pressure	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1280 Aneroid pressure hPa : - Del. quantity	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1280 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 83.0 Tolerance	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1280
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1280 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : + 1.0	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1280 rack travel mm : 11.05
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1280 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1280 rack travel mm : 11.05 Tolerance mm : + 0.05
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1280 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1280 rack travel mm : 11.05 Tolerance mm : + 0.05 Rated speed rpm : 750
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1280 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1280 rack travel mm : 11.05 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aner	bio	pressure

hPa : -Rated speed rpm : 750 Del. quantity

cm3/1000 strokes : 71.0

Tolerance

loterance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : +- 4.0

Spreed Tolerance

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. : 7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : + 5.0

Check tolerance

cm3/1000s : +- 8.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm : 8.00 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 11.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.5 Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 476 067

Injection pump

Pump designation : PES6MW100/720RS1131

EP type number : 0 413 406 123

Governor

Governer design. : RSV350...1300MW0A2

Governer no. : 0 420 085 109

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : OM 366 LA Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 12.65
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 101.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

: -- 3.0

Spreed +	Tolerance
+	cm3/1000 strokes : 3.5
Tolerance +	Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : 6.0
+	
Check tolerance +	
cm3/1000s. : 6.0	
†	CONTROL LEVER
+	
†	control lever
Rated speed rpm : 350	position degree : 98.0
†	tolerance degree : +- 4.0
Rack travel in mm: 6.55	
Tolerance mm : + 0.35	RATED SPEED
Del. quantity	
cm3/1000 strokes : 11.0	rack travel mm : 1.00
Tolerance +	Tolerance mm : + 0.70
cm3/1000 strokes : + 2.0 +	Rated speed rpm : 1600
Check tolerance	
cm3/1000s. : + 4.5	rack travel mm : 4.00
3preed +	Rated speed rpm : 1435
Tolerance	Tolerance 1/min : +- 15
cm3/1000 strokes : 3.5	
Check tolerance +	rack travel mm : 11.60
cm3/1000s. : 5.5	Rated speed rpm : 1343
†	Tolerance 1/min : +- 8
(2)	
(B) SETTING OF INJECTION PUMP	ASSEMBLY GOVERNOR SETTING
WITH GOVERNOR +	5
†	Rated speed rpm : 1340
†	rack travel num : 11.60
CUTAT OF CONTRACT	D-1-1 1 4704
GUIDE SLEEVE POSITION +	Rated speed rpm : 1391
†	Tolerance 1/min : +- 4
Tomatical law and	rack travel and : 4.00
control lever	
position degree : - 3	Data dama dama a 47/4
Rated speed rpm : 800	Rated speed rpm : 1341
Dools doors of the man a CO /F	rack travel mm : 11.60
Rack travel in mm: 0.65	
	Dated around reserved 4700
Tolerance mm : + 0.35	Rated speed rpm : 1392
+	Tolerance 1/min : + 4
governor spring	the state of the s
governor spring pre-tension +	Tolerance 1/min : + 4
governor spring	Tolerance 1/min : + 4 rack travel mm : 4.00
governor spring pre-tension +	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342
governor spring pre-tension click setting x : 5.75	Tolerance 1/min : + 4 rack travel mm : 4.00
governor spring pre-tension +	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000 Del. quantity	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4 rack travel mm : 4.00
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 101.0	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1343
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 101.0 Tolerance	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1343
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 101.0 Tolerance cm3/1000 strokes : + 1.0	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1343 rack travel mm : 1343 rack travel mm : 11.60
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 101.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1343 rack travel mm : 11.60 Rated speed rpm : 1394
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 101.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1343 rack travel mm : 11.60 Rated speed rpm : 1394 Tolerance 1/min : + 4
governor spring pre-tension click setting x : 5.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 101.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Tolerance 1/min: : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 rack travel mm : 11.60 Rated speed rpm : 1393 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1343 rack travel mm : 11.60 Rated speed rpm : 1394

Rated speed rpm : 1344 rack travel mm : 11.60

Rated speed rpm : 1395
Tolerance 1/min : + 4
rack travel mm : 4.00

Rated speed rpm : 1345 rack travel mm : 11.60

Rated speed rpm : 1396
Tolerance 1/min : + 4
rack travel mm : 4.00

LOW IDLE

Setting point w/out bumper spring

Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpm : 350 rack travel mm : 6.55 Tolerance mm : + 0.35

rack travel mm : 2.00
Rated speed rpm : 450
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1300 rack travel mm : 12.65 Tolerance mm : + 0.05

Rated speed rpm : 600 rack travel mm : 12.65 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1000
rack travel mm : 12.65
Tolerance mm : + 0.10

Rated speed rpm : 500
Pressure hPa : Tolerance mm : +- 0.05

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 400 rack travel mm : 1.40 Tolerance mm : +- 0.10

Pressure hPa : 250 rack travel mm : 0.50 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1000 Rated speed rpm 600 Del. quantity 88.0 cm3/1000 strokes : Tolerance cm3/1900 strokes : +-1.5 Check tolerance cm3/1000S.: +--4.0 Spreed Tolerance cm3/1000 strokes : 5.0

Check tolerance cm3/1000s. : 7.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 54.0 Tolerance

cm3/1000 strokes : + 1.0 Check tolerance

cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity

cm3/1000 strokes : 88.0

Tolerance

cm3/1000 strokes : + 5.0

Check tolerance

cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm	:		350
Rack travel in mm Tolerance mm Del. quantity	:	+	6.55 0.35
cm3/1000 strokes Tolerance	:		11.0
cm3/1000 strokes Check tolerance	:	+-	2.0
cm3/1000s. Spreed	:	+-	4.5
Tolerance cm3/1000 strokes Check tolerance	:		3.5
cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.12.97 Edition : Iso 4113 Test oil

Combination No. : 0 403 476 077

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

6overnor

Governer design. : RSV350...1300MM0A3

: 0 420 085 126 Governer no.

Cust. part No.

Customer-spec. information Customer : MB-NFZ : DM 366 LA Motor Power KW : 127.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temo. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

: 3.75 Prestroke mm Tolerance mm : +- 0.05 Check tolerance mm : +- 0.10

Rack travel in mm: 10.50 : + 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.65 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 82.0

Tolerance cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +- 3.0

Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 6.0	†
	CONTROL LEVER
Dated aread may 1 750	+ control lever
Rated speed rpm : 350	position degree : 107.0 tolerance degree : + 4.0
Rack travel in mm: 6.55	+
Tolerance mm : + 0.35	RATED SPEED
Del. quantity cm3/1000 strokes : 11.0	rack travel mm : 1.00
Tolerance	+ Tolerance mma : + 0.70
cm3/1000 strokes : + 2.0 Check tolerance	Rated speed rpm : 1550
cm3/1000s. : + 4.5	+ rack travel mm: : 4.00
Spreed Tolerance	+ Rated speed rpm : 1445 + Tolerance 1/min : +- 15
cm3/1000 strokes : 3.5	+ total and a strain that the
Check tolerance	rack travel mm : 10.60
cm3/1000s. : 5.0	Rated speed rpm : 1343
	Tolerance 1/min : + 8
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	ASSEMBLY GOVERNOR SETTING
	Rated speed rpm : 1340
	rack travel mm : 10.60
GUIDE SLEEVE POSITION	Rated speed rpm : 1401
	+ Tolerance 1/min : + 4
control lever	rack travel mm : 4.00
position degree : - 3	Ţ
Rated speed rpm : 800	Rated speed rpm : 1341
Rack travel in mm : 0.65	rack travel mm : 10.60
Tolerance mm : + 0.35	Rated speed rpm : 1402
	+ Tolerance 1/min : + 4
governor spring	rack travel mm : 4.00
pre-tension click setting x : 4.20	1
being sorting in the	Rated speed rpm : 1342
THE LOAD STITUTED AT THE LAGE STOP	rack travel mm : 10.60
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1403
Rated speed rpm : 1300	Tolerance 1/min : + 4
Aneroid pressure	rack travel mm : 4.00
hPa : -	†
Del. quantity cm3/1000 strokes : 82.0	Rated speed rpm : 1343
Tolerance	Rated speed rpm : 1343 rack travel mm : 10.60
cm3/1000 strokes : + 1.0	+
Check tolerance cm3/1000s. : + 3.0	Rated speed rpm : 1404 Tolerance 1/min : + 4
Spreed	rack travel mm : 4.00
Tolerance	+
cm3/1000 strokes : 3.5	Poted aread 17//
	+ Rated speed rpm : 1344

rack travel am : 10.60 Rated speed rpm : 1405 Tolerance 1/min : +rack travel mm : Rated speed rpm : 1345 rack travel mm : 10.60 Rated speed rpm : 1406
Tolerance 1/min : + 4 rack travel mm : 4.00 LOW IDLE Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00Testing: Rated speed rpm : 350 rack travel mm : 6.55 Tolerance mm : + 0.35 rack travel mm : Rated speed rpm : 2.00 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 11.65 Tolerance mm : + 0.05 Rated speed rpm : 900 rack travel mm : 11.95 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure Rated speed rpm : 900 Del. quantity cm3/1000 strokes : 77.5

cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 7.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 85.0 Tolerance cm3/1000 strokes : \leftarrow 5.0 Check tolerance cm3/1000s. : +- 8.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm: 6.55 Tolerance mm : + 0.35 Det. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +- 2.0Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. 5.0

Tolerance

End of test specification sheet

Tolerance

cm3/1000s. Spreed

Check tolerance

cm3/1000 strokes : \leftarrow 1.5

: **←** 4.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 476 081

Injection pump

Pump designation : PES6MW100/720RS1196

: -1

EP type number : 0 413 406 219

Governor

Governer design. : RSV350...1050MW0A338

Governer no. : 0 420 085 138

Cust. part No. :

Customer—spec. information Customer : LIEBHERR

Motor : D 916 T Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 049

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

F02

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.45
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 13.25
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 151.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0	Check tolerance cm3/1000s. : 6.0
	CONTROL LEVER
Rated speed rpm : 350	control lever position degree : 104.0 tolerance degree : +- 4.0
Rack travel in mm : 9.80 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 73.0 Tolerance	RATED SPEED rack travel mm : 12.25 Rated speed rpm : 1075 Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0 +	
Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance	rack travel mm : 4.00 Rated speed rpm : 1140 Tolerance 1/min : +- 10
cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.0	rack travel mm : 1.00 Tolerance mm : + 0.70 Rated speed rpm : 1250
This roots:	• • • • • • • • • • • • • • • • • • • •
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 4.00 Rated speed rpm : 1190 Tolerance 1/min : +- 10
GUIDE SLEEVE POSITION	LOW IDLE
control lever position degree : -3 Rated speed rpm : 800	control lever position degree : 76.0 tolerance degree : + 4.0
position degree : -3	position degree : 76.0
position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65	position degree : 76.0 tolerance degree : +- 4.0
position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 5.00	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 6.70
position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 6.70 Tolerance mm : + 0.20
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 6.70 Tolerance mm : + 0.20 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1650 Aneroid pressure hPm : 1300 Del. quantity	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 6.70 Tolerance mm : + 0.20 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 350
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1650 Aneroid pressure hPa : 1300 Del. quantity cm3/1000 strokes : 151.0 Tolerance cm3/1000 strokes : + 1.0	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 6.70 Tolerance mm : + 0.20 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing:
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1650 Aneroid pressure hPa : 1300 Del. quantity cm3/1000 strokes : 151.0 Tolerance	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 6.70 Tolerance mm : + 0.20 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 350 rack travel mm : 350 rack travel mm : 9.80

Rated speed rpm	: 500
rack travel aum	: 13.25
Tolerance mum	: ← 0.10
Rated speed rpm	: 800
rack travel mm	: 13.25
Tolerance mm	: + 0.10
Rated speed rpm	: 400
rack travel mm	: 14.75
Tolerance mm	: +- 0.25

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600
Pressure hPa : 1300
rack travel mm : 13.25
Tolerance mm : + 0.05

Rated speed rpm : 600
Pressure hPa : Tolerance mm : + 0.05

MEASUREMENT

Rated speed rpm : 600

Pressure hPa : 500 rack travel mm : 1.05 Tolerance mm : + 0.10

Pressure hPa : 700 rack travel mm : 1.95 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1300 hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 145.0 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 4.0 Spreed Tolerance 5.0 cm3/1000 strokes : Check tolerance cm3/1000s.7.0

Aneroid pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 1300 : 800 : 13.25 : + 0.10
Del. quantity cm3/1000 strokes	: 150.5
Tolerance cm3/1000 strokes Check tolerance	: + 1.5
cm3/1000s.	: +- 4.0
Aneroid pressure	

hPa : - 600
Rated speed rpm : 600
Del. quantity
cm3/1000 strokes : 113.5
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

ESS test: With 24 V solenoid activated, rack must reach start position in max. control lever setting.

10
1.25
1.75
2.0
5.0
8.0

LOW IDLE

Spreed

Rated speed rpm 350 Rack travel in mm: 9.80 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 73.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 : +-

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 5.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.12.97 : ISO 4113

Combination No. : 0 403 476 097

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

Governor

Governer design. : RSV350...1300MW0A342

: -2

Governer no.

: 0 420 085 157

Cust. part No. : 0200740002

Customer-spec. information Customer : MB-NFZ Motor : OM 366 LA Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 015 Outside diameter : 6.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : ← 1.0

Prestroke mm : **←** 0.05 Tolerance mm

Check

: ← 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : **←** 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

1300 Rated speed rpm :

Rack travel in mm: 15.65 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 117.0

Tolerance

cm3/1000 strokes : +- 1.0

6 1 1 1	•		
Check tolerance	†	Tolerance	3 6
cm3/1000s.	: ← 3.0 +	cm3/1000 strokes	
0		Check tolerance	
Spreed	†	cm3/1000s.	: 6.0
Tolerance	Ť		
cm3/1000 strokes	. 35		
CHEST TODO SCIOKES	· 3.5	CONTROL LEVER	
Check tolerance	I	CONTROL LEVER	
cm3/1000s.	: 6.0	control lever	
		position degree	: 107.0
		tolerance degree	
	+		
Rated speed rpm	: 350	RATED SPEED	
Del. quantity	+		
cm3/1000 strokes	: 11.0 . +	rack travel mm	: 1.00 : + 0.70
Tolerance	†	Tolerance mm	
cm3/1000 strokes	: ← 2.0 +	Rated speed rpm	: 1600
Check tolerance	t		
cm3/1000s.	: +- 4.5	rack travel mm	
Spreed	†	Rated speed rpm	
Tolerance cm3/1000 strokes	: 3.5	Tolerance 1/min	: + 15
Check tolerance		rack travel mm	: 14.60
cm3/1000s.		Rated speed rpm	
CIRD/ 10005.	· I	Tolerance 1/min	
	I	Total Grante Trail	• • •
(B) SETTING OF IN	WECTION PUMP	ASSEMBLY GOVERNOR	R SETTING
WITH GOVERNOR	+		
	+	Rated speed rpm	
	+	rack travel mm	: 14.65
GUIDE SLEEVE POSI	TION +	Rated speed rpm	
	†	Tolerance 1/min	
	†	rack travel mm	: 4.00
control lever	,		
position degree Rated speed rom		Dated aread are	: 1341
rated speed rpm	· w	Rated speed rpm rack travel mm	
Rack travel in mm	i: 0.65	I GICK FIGYET INN	. 17.07
Tolerance ma		Rated speed rpm	: 1437
		Tolerance 1/min	
governor spring	1	rack travel mm	
pre-tension	+		
click setting x	: 4.00		
-	+	Rated speed rpm	: 1342
		rack travel mm	: 14.65
FULL LOAD DELIVER	RY AT FULL LOAD STOP +		4.55
	+ + + + + + + + + + + + + + + + + + + +	Rated speed rpm	
Rated speed rpm	: 1300 +	Tolerance 1/min	
Aneroid pressure	. 1000	rack travel mm	: 4.00
hPa	: 1000 +		
Del. quantity	. 117.0	Datad assaul ass	. 47/7
cm3/1000 strokes Tolerance	· 111.0 †	Rated speed rpm rack travel mm	
cm3/1000 strokes	1. + 10 T	וימטא נוימאבר שש	. 14.03
Check tolerance	T	Rated speed rpm	: 1439
cm3/1000s.	: +- 3.0	Tolerance 1/min	
Spreed	I	rack travel mm	
opi cca	7	TOOK CITYCE IMP	. 7.00

Rated speed rpm : 1344 rack travel mm 14.65

Rated speed rpm 1440 Tolerance 1/min - 4 rack travel mm 4.00

1345 Rated speed rpm rack travel mm 14.65

1441 Rated speed rpm Tolerance 1/min 4 rack travel me 4.00

LOW IDLE

Setting point w/out bumper spring

Rated speed rpm 350 rack travel mm 7.40 Tolerance mm : **←** 0.40

Rated speed rpm 100

CRT mm min. : > 19.00

Testing:

2.00 rack travel mm Rated speed rom 460 Tolerance 1/min : +

"TORQUE CONTROL

1300 Rated speed rpm rack travel mm 15.65 Tolerance mm : **←** 0.05

600 Rated speed rom rack travel mm 15.65 : **←** 0.10 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1000 rack travel mm 15.65 Tolerance mm : + 0.10

Rated speed rpm 500 Pressure hPa : + 0.05Tolerance mm

MEASUREMENT

Rated speed rpm 500

500 Pressure hPa rack travel mm 3.70 Tolerance mm : + 0.10

270 Pressure hPa : rack travel mm 1.90 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 1000 Rated speed rpm 600

Del. quantity cm3/1000 strokes : 112.0

Tolerance

cm3/1000 strokes : +-1.5 Check tolerance

cm3/1000s. 4.0 Spreed

Tolerance

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. 7.0

Aneroid pressure

Rated speed rpm 500 Del. quantity

cm3/1000 strokes : 32.0

Tolerance

cm3/1000 strokes : +-1.0 Check tolerance

cm3/1000s. 3.0

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s. 8.0

LOW IDLE

Rated speed rpm Del. quantity	:		350
cm3/1000 strokes	:		11.0
Tolerance cm3/1000 strokes	:	+-	2.0
Check tolerance cm3/1000s.	:	+-	4.5
Spreed Tolerance			
cm3/1000 strokes	:		3.5
Check tolerance cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 476 105

Injection pump

Pump designation : PES6MW100/720RS1131

EP type number : 0 413 406 123

Governor

Governer design. : RSV350...1200MW0A342

: ~8

Governer no. : 0 420 085 171

Cust. part No. : 0210746702

Customer—spec. information Customer : MB-NFZ Motor : OM 366 A Power KW : 114.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 10.95 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 84.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

F10

Spreed	+ Check tolerance + cm3/1000S. : 6.0
	+ cm3/1000s. : 6.0
Tolerance cm3/1000 strokes : 3.5	t
	CONTROL LEVER
Check tolerance cm3/1000s. : 6.0	+ control lever
cm3/1000s. : 6.0	position degree : 104.0
	tolerance degree : +- 4.0
Rated speed rpm : 350 Del. quantity	RATED SPEED
cm3/1000 strokes : 11.0	rack travel mm : 1.00
Tolerance cm3/1000 strokes : +- 2.0	Tolerance mm : + 0.70 Rated speed rpm : 1450
Check tolerance	Rated speed rpm : 1450
cm3/1000s. : + 4.5	rack travel mm : 4.00
Spreed Tolerance	+ Rated speed rpm : 1320 + Tolerance 1/min : +- 15
cm3/1000 strokes : 3.5	+ Ocea dice training . The 15
Check tolerance	rack travel mm : 9.90
cm3/1000s. : 5.5	+ Rated speed rpm : 1248 + Tolerance 1/min : + 8
	+ Tolerance 1/min : +- 8 +
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	ASSEMBLY GOVERNOR SETTING
	Rated speed rpm : 1240
	rack travel mm : 9.90
GUIDE SLEEVE POSITION	Rated speed rpm : 1289
	Tolerance 1/min : + 4
control lever	track travel mm : 4.00
position degree : - 3	
Rated speed rpm : 800	Rated speed rpm : 1241
Rack travel in mm: 0.65	+ rack travel mm : 9.90
Tolerance mm : + 0.35	Rated speed rpm : 1290
•	Tolerance 1/min : + 4
governor spring pre-tension	rack travel mm : 4.00
click setting x : 5.75	1
	Rated speed rpm : 1242
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 9.90
	Rated speed rpm : 1291
Rated speed rpm : 1200	Tolerance 1/min : + 4
Aneroid pressure hPa : 750	rack travel mm : 4.00
Del. quantity	1
cm3/1000 strokes : 84.0	Rated speed rpm : 1243
Tolerance	rack travel mm : 9.90
cm3/1000 strokes : +- 1.0 Check tolerance	Rated speed rpm : 1292
cm3/1000s. : +- 3.0	Tolerance 1/min : +- 4
Spreed	rack travel mm : 4.00
Tolerance cm3/1000 strokes : 3.5	1
CIRCY (OUC SCIONES . J.)	Rated speed rpm : 1244

rack travel mm	: 9.90
Rated speed rpm Tolerance 1/min rack travel mm	: 1293 : ← 4 : 4.00
Rated speed rpm rack travel mm	: 1245 : 9.90
Rated speed rpm Tolerance 1/min rack travel mm	: 1294 : + 4 : 4.00
LOW IDLE	-
Setting point w/o	out bumper spring
Rated speed rpm rack travel mm; Tolerance mm	
Rated speed rpm	: 100
CRT mm min.	: > 19.00
Testing:	
rack travel mm Rated speed rpm Tolerance 1/min	: 460
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1200 : 10.95 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 11.10 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 750 : 11.75 : + 0.10
Rated speed rpm	: 500

Pressure hPa	
Tolerance mm	÷ 0.05
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 400 : 1.75 : ← 0.10
, , , , , , , , , , , , , , , , , , , ,	
Pressure hPa rack travel mm Tolerance mm	: 300 : 1.15 : + 0.10
FUEL DELIVERY CHA	RACTERISTICS
FUEL DELIVERY CHA	RACTERISTICS
FUEL DELIVERY CHA	RACTERISTICS : 750
Aneroid pressure hPa Rated speed rpm Del. quantity	: 750 : 600
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 750
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 750 : 600
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 750 : 600 : 79.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 750 : 600 : 79.5 : + 1.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 750 : 600 : 79.5 : + 1.5 : + 4.0

Aneroid pressure hPa Rated speed rpm Del. quantity	:		500
cm3/1000 strokes Tolerance	:		46.0
cm3/1000 strokes	:	+-	1.0
Check tolerance cm3/1000s.	:	+-	3.0

STARTING FUEL DELIVERY

Rated speed rpm	:	100
Del. quantity cm3/1000 strokes	:	88.0
Tolerance cm3/1000 strokes	: +-	5.0

Check tolerance : **←** 8.0 cm3/1000s.

LOW IDLE

Rated speed rpm : 350 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : **←** 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s.

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.12.97 : ISO 4113

Combination No. : 0 403 476 123

Injection purp

Pump designation : PES6MW100/320RS1227Z

EP type number : 0 413 406 217

Governor .

Governer design. : RSV325...1300MW0A350

Governer no. : 0 420 085 200

Cust. part No. : 1249935

Customer-spec. information Customer : DAF

: NS133L Motor

Power KW : 133.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.05 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 13.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

: +- 0.75 tolerance *NW

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 11.85 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 94.5

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : **←** 3.0

Tolerance cm3/1000 strokes : 3.5	t Check tolerance cm3/1000s. : 6.0
heck tolerance m3/1000s. : 6.0	
	CONTROL LEVER
	control lever
Rated speed rpm : 325	position degree : 102.0 tolerance degree : + 4.0
Rack travel in mm : 4.50	-
Tolerance mm : + 0.10	A RATED SPEED
Del. quantity	rack travel mm : 10.85
cm3/1000 strokes : 9.0	Rated speed rpm : 1332
Tolerance	+ Tolerance 1/min : + 8
cm3/1000 strokes : + 2.0	1
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5	Rated speed rpm : 1425
Spreed	+ Tolerance 1/min : + 15
Tolerance	-
cm3/1000 strokes : 3.5	rack travel mm : 1.00
Check tolerance	+ Tolerance mm : + 0.70
cm3/1000s. : 5.5	Rated speed rpm : 1550
	- 1000
	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1455
VITH GOVERNOR	+ Tolerance 1/min : + 15
	LOW IDLE
control lever	+
position degree : - 3	+ control lever
Ratted speed rpm : 800	position degree : 70.0
	position degree : 70.0 tolerance degree : + 4.0
Rack travel in mm : 0.65	tolerance degree : + 4.0
Rack travel in mm: 0.65 Tolerance mm: + 0.35	tolerance degree : + 4.0 Setting point w/out bumper spring
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring pre-tension	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325
Rack travel in mm: 0.65 Tolerance mm: + 0.35 Governor spring Dre-tension	tolerance degree : + 4.0 Setting point w/out bumper spring
Rack travel in mm: 0.65 Tolerance mm: + 0.35 Governor spring Dre-tension	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance mm : + 0.10
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring bre-tension click setting x: 4.00	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance mm : + 0.10 Testing:
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring pre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance rmm : + 0.10 Testing: Rated speed rpm : 325
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring pre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance rmm : + 0.10 Testing: Rated speed rpm : 325
Rack travel in mm: 0.65 Folerance mm: + 0.35 governor spring bre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Ameroid pressure	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance rmm : + 0.10 Testing: Rated speed rpm : 325
Rack travel in mm: 0.65 Folerance mm: + 0.35 governor spring bre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Aneroid pressure nPa: 1000	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 4.00 Tolerance mm : + 0.10 Testing: Rated speed rpm : 325 rack travel mm : 4.50 Tolerance mm : + 0.10
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring bre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Ameroid pressure nPa: 1000 Del. quantity	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 4.00 Tolerance mm : + 0.10 Testing: Rated speed rpm : 325 rack travel mm : 4.50 Tolerance mm : + 0.10 rack travel mm : 2.00
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring bre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Aneroid pressure hPa: 1000 Del. quantity cm3/1000 strokes: 94.5	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 4.00 Tolerance mm : + 0.10 Testing: Rated speed rpm : 325 rack travel mm : 4.50 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 385
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring bre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Aneroid pressure hPa: 1000 Del. quantity cm3/1000 strokes: 94.5 Tolerance	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 4.00 Tolerance mm : + 0.10 Testing: Rated speed rpm : 325 rack travel mm : 4.50 Tolerance mm : + 0.10 rack travel mm : 2.00
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring pre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Aneroid pressure hPa: 1000 Del. quantity cm3/1000 strokes: 94.5 Tolerance cm3/1000 strokes: + 1.0	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 4.00 Tolerance mm : + 0.10 Testing: Rated speed rpm : 325 rack travel mm : 4.50 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 385
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring pre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Aneroid pressure hPa: 1000 Del. quantity cm3/1000 strokes: 94.5 Tolerance cm3/1000 strokes: + 1.0 Check tolerance	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 4.00 Tolerance mm : + 0.10 Testing: Rated speed rpm : 325 rack travel mm : 4.50 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 385
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring bre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Ameroid pressure hPa: 1000 bel. quantity cm3/1000 strokes: 94.5 Tolerance cm3/1000 strokes: + 1.0 Check tolerance	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance rmm : + 0.10 Testing: Rated speed rpm : 325 rack travel rmm : 4.50 Tolerance rmm : + 0.10 rack travel rmm : 2.00 Rated speed rpm : 485 Tolerance 1/min : + 35
Rack travel in mm: 0.65 Tolerance mm: + 0.35 governor spring pre-tension click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Aneroid pressure hPa: 1000 Del. quantity cm3/1000 strokes: 94.5 Tolerance cm3/1000 strokes: + 1.0 Check tolerance	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance rmm : + 0.10 Testing: Rated speed rpm : 325 rack travel rmm : 4.50 Tolerance rmm : + 0.10 rack travel rmm : 2.00 Rated speed rpm : 485 Tolerance 1/min : + 35
Rack travel in mm: 0.65 Folerance mm: + 0.35 governor spring pre-tension Click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Ameroid pressure Pa: 1000 Pel. quantity Pa: 94.5 Folerance Pa: 1.0 Check tolerance Pa: 1.0 Check tolerance Pa: 3.0	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel rmm : 4.00 Tolerance rmm : + 0.10 Testing: Rated speed rpm : 325 rack travel rmm : 4.50 Tolerance rmm : + 0.10 rack travel rmm : 2.00 Rated speed rpm : 485 Tolerance 1/min : + 35 TORQUE CONTROL Rated speed rpm : 1000 rack travel rmm : 11.85
Rack travel in mm: 0.65 Folerance mm: + 0.35 Sovernor spring Ore-tension Click setting x: 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 1000 Ineroid pressure OPA: 1000 OPA	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 4.00 Tolerance mm : + 0.10 Testing: Rated speed rpm : 325 rack travel mm : 4.50 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 485 Tolerance 1/min : + 35

Rated speed rpm	:	1	300
rack travel mm	:		11.85
Tolerance am	:	+-	0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	600
Pressure hPa	:	1000
rack travel mm	:	11.85
Tolerance mm	:	← 0.05

Rated speed rpm	:	600
Pressure hPa	:	290
rack travel mm	:	11.25
Tolerance mm	: +	-0.05

MEASUREMENT

Pressure hPa	:	_
rack travel mm	:	9.90
Tolerance mm	: +-	0.10

Pressure hPa : 160 rack travel mm : 10.40 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure			
hPa	:	1	000
Rated speed rpm	:	1	300
Del. quantity			
cm3/1000 strokes	:		92.0
Tolerance			
cm3/1000 strokes	:	+-	1.5
Check tolerance			
cm3/1000s.	:	+-	4.0
Spreed			
Tolerance			
cm3/1000 strokes	:		5.0
Check tolerance			
cm3/1000s.	:		7.0

Aneroid pressure		
hPa	:	-
Rated speed rpm	:	600
Del. quantity		
cm3/1000 strokes	:	63.0

Tolerance		
cm3/1000 strokes	: +-	1.0
Check tolerance		
cm3/1000s	* +	3.0

LOW IDLE

Rated speed rpm	:		325
Rack travel in mm Tolerance mm Del. quantity	-	+	4.50 0.10
cm3/1000 strokes Tolerance	:		9.0
cm3/1000 strokes Check tolerance	:	+	2.0
cm3/1000s. Spreed	:	+-	4.5
Tolerance cm3/1000 strokes	:		3.5
Check tolerance cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.12.97 : ISO 4113

Combination No. : 0 403 476 136

Injection pump

Pump designation : PES6MW100/320RS1237

EP type number : 0 413 406 233

Governor

Governer design. : RSV300...1100MW1A353

Governer no.

: 0 420 085 223

Cust. part No. :

Customer-spec. information : VME Customer : TD616D Motor

Power KW

: 92.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

31.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: **←** 0.50 Tolerance

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.90 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 106.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

: +- 3.0

Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 6.0	
	CONTROL LEVER
Rated speed rpm : 315	control lever position degree : 114.0 tolerance degree : +- 4.0
Rack travel in mm: 6.50 + Tolerance mm: + 0.10 + Del. quantity	RATED SPEED
cm3/1000 strokes : 6.0	rack travel mm : 8.90 Rated speed rpm : 1140 Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0 + Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5 Spreed Tolerance	Rated speed rpm : 1180 Tolerance 1/min : +- 15
cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 1.00 Tolerance mm : +- 0.70 Rated speed rpm : 1250
cm3/1000s. : 5.5	Rated speed rpm : 1250
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 82.0 tolerance degree : +- 4.0
control lever position degree : - 3 Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm : 0.65	Rated speed rpm : 100
Tolerance mm : + 0.35	CRT mmm min. : > 19.00 Testing:
pre-tension click setting x : 4.00	Rated speed rpm : 315
	rack travel mm : 6.50 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	TODOUT GOADON
Rated speed rpm : 1100 + Aneroid pressure hPa : -	TORQUE CONTROL Rated speed rpm : 1100 rack travel mm : 9.90
Del. quantity cm3/1000 strokes : 106.0	Tolerance mm : + 0.05
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 500 rack travel mm : 11.30
Check tolerance cm3/1000s. : + 3.0 + Spreed	Tolerance mm : +- 0.10 Rated speed rpm : 660
Tolerance cm3/1000 strokes : 3.5	rack travel mm : 10.20 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 107.0 Tolerance cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance 7.0 cm3/1000s.

rack travel mm 10.20 Tolerance mm : + 0.10

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm 20.00 Tolerance mm : **←** 1.00 Del. quantity cm3/1000 strokes : 90.0 Tolerance cm3/1000 strokes : \leftarrow 7.0 Check tolerance cm3/1000s. : + 10.0

100

LOW IDLE

Rated speed rpm : 315 Rack travel in mm : 6.50 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 6.0 Tolerance 2.0 cm3/1000 strokes : +-Check tolerance cm3/1000s.: +-4.5 Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance 5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 476 141

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1300MW0A354

Governer no. : 0 420 085 247

Cust. part No. : 0260742002

Customer—spec. information Customer : MB-NFZ Motor : OM 366 LA Power KW : 127.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.65
Tolerance mm: + 0.05

Del. quantity cm3/1000 strokes : 85.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : ← 3.0

Tolerance cm3/1000 strokes : 3.5 Check tolerance	Check tolerance cm3/1000s. : 6.0
cm3/1000s. : 6.0	CONTROL LEVER
Rarted speed rpm : 350	control lever position degree : 113.0 tolerace degree : + 4.0
Rack travel in mm: 8.40 Tolerance mm : + 0.35	RATED SPEED
Del. quantity cm3/1000 strokes : 11.0	rack travel mm : 1.00
Tolerance cm3/1000 strokes : + 2.0	Tolerance mm : + 0.70 Rated speed rpm : 1550
Check tolerance cm3/1000s. : +- 4.5 +- Spreed	rack travel mm : 4.00
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1445 Tolerance 1/min : +- 15
Check tolerance cm3/1000s. : 5.5	rack travel mm : 10.60 Rated speed rpm : 1343
	Tolerance 1/min : +- 8
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	ASSEMBLY GOVERNOR SETTING
‡	Rated speed rpm : 1340 rack travel mm : 10.60
GUIDE SLEEVE POSITION	Rated speed rpm : 1401
‡	Tolerance 1/min : +- 4 rack travel mm : 4.00
control lever position degree : -3	
Rarted speed rpm : 300	Rated speed rpm : 1341 rack travel mm : 10.60
Rack travel in mm: 0.65 Tolerance mm: + 0.35	Rated speed rpm : 1402
governor spring + pre-tension +	Tolerance 1/min : +- 4 rack travel mm : 4.00
click setting x : 4.20	Rated speed rpm : 1342
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 10.60
Rarted speed rpm : 1300	Rated speed rpm : 1403 Tolerance 1/min : +- 4
Aneroid pressure + hPa : - +	rack travel mm : 4.00
Del. quantity + cm3/1000 strokes : 85.0 + Tolerance + Tolerance	Rated speed rpm : 1343 rack travel mm : 10.60
cm3/1000 strokes : + 1.0 + Check tolerance +	Rated speed rpm : 1404
cm3/1000s. : + 3.0 + 5preed	Tolerance 1/min : + 4 rack travel mm : 4.00
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1344

rack travel mm : 10.60 1405 Rated speed rpm Tolerance 1/min : ← rack travel mm : 4.00 1345 Rated speed rpm : rack travel man : 10.60 1406 Rated speed rpm : Tolerance 1/min : + 4.00 rack travel mm LOW IDLE Setting point w/out bumper spring 100 Rated speed rpm : : > 19.00 CRT mm min. Testing: 350 Rated speed rpm : rack travel mm 8.40 Tolerance am : **←** 0.35 2.00 rack travel mm • Rated speed rpm 470 Tolerance 1/min : +-TORQUE CONTROL 1300 Rated speed rpm rack travel mm 11.65 Tolerance man : **←** 0.05 900 Rated speed rpm rack travel mm 11.95 : + 0.10Tolerance me FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 900 Rated speed rpm : Del. quantity cm3/1000 strokes : Tolerance

Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. 7.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. : +- 8.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 8.40 Tolerance mm 0.35 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0

4.5

3.5

5.5

: +-

:

End of test specification sheet

Check tolerance

Check tolerance

cm3/1000 strokes :

cm3/1000s.

cm3/1000s.

Spreed Tolerance

cm3/1000 strokes : \leftarrow 1.5

: +-

4.0

Check tolerance

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.12.97 Edition Test oil : ISC 4113

Combination No. : 0 403 476 142

Injection pump

Pump designation : PES6MW100/720RS1239

EP type number : 0 413 406 238

Governor

Governer design. : RSV350...1200MW0A372

Governer no. : 0 420 085 255

Cust. part No. : 0250748902

Customer spec. information : MB-NFZ Customer : 0M366LA Motor 90.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar

: 1 680 750 089 Test lines

Outside diameter : 8.0 x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 3.65 Tolerance mm : + 0.05 Check

: + 0.10tolerance mm

20,00 Rack travel in mm : Tolerance mm : +- 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + - 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 12.30 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +-3.0

Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 6.0	
	CONTROL LEVER
Rated speed rpm : 350	control lever position degree : 119.0 tolerance degree : +- 4.0
Rack travel in mm: 7.50 Tolerance mm: + 0.25	RATED SPEED
Del. quantity - cm3/1000 strokes : 12.0 - Tolerance -	rack travel mm : 1.00 Tolerance mm : +- 0.70
cm3/1000 strokes : + 2.0 - Check tolerance -	Rated speed rpm : 1450
cm3/1000s. : + 4.5 - 5preed	rack travel mm : 4.00 Rated speed rpm : 1400
Tolerance - cm3/1000 strokes : 3.5	Tolerance 1/min : + 15
Check tolerance cm3/1000s. : 5.5	rack travel mm : 11.30 Rated speed rpm : 1250 Tolerance 1/min : +- 8
(B) SETTING OF INJECTION PUMP	ASSEMBLY GOVERNOR SETTING
WITH GOVERNOR	Rated speed rpm : 1240
	Rated speed rpm : 1240 rack travel mm : 11.30
GUIDE SLEEVE POSITION	Rated speed rpm : 1370 Tolerance 1/min : +- 4
control lever	rack travel mm : 4.00
position degree : - 3 - Rated speed rpm : 800 -	Rated speed rpm : 1241
Rack travel in mm: 0.65 Tolerance mm: + 0.35	rack travel mm : 11.30 Rated speed rpm : 1371
governor spring	Tolerance 1/min : + 4 rack travel mm : 4.00
pre-tension - click setting x : 4.00 -	TOCK CITYER INTO
	Rated speed rpm : 1242 rack travel mm : 11.30
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1372
Rated speed rpm : 1200 - Aneroid pressure	Tolerance 1/min : +- 4 rack travel mm : 4.00
hPa : Del. quantity -	
cm3/1000 strokes : 67.0	Rated speed rpm : 1243 rack travel mm : 11.30
cm3/1000 strokes : + 1.0 - Check tolerance	Rated speed rpm : 1373
cm3/1000s. : +- 3.0 Spreed	Tolerance 1/min : + 4 rack travel mm : 4.00
Tolerance cm3/1000 strokes : 3.5	
	Rated speed rpm : 1248

rack travel mm : 11.30

Rated speed rpm : 1378
Tolerance 1/min : + 4
rack travel mm : 4.00

Rated speed rpm : 1249 rack travel mm : 11.30

Rated speed rpm : 1379
Tolerance 1/min : ← 4
rack travel mm : 4.00

LOW IDLE

Setting point w/out bumper spring

Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpm : 350 rack travel mm : 7.50 Tolerance mm : + 0.25

TORQUE CONTROL

Rated speed rpm : 1200 rack travel mm : 12.30 Tolerance mm : + 0.05

Rated speed rpm : 600 rack travel mm : 12.30 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa

Rated speed rpm : 600
Del. quantity

cm3/1000 strokes : 45.0 Tolerance

cm3/1000 strokes : \leftarrow 1.5

Check tolerance cm3/1000s. : + 4.0

Spreed Tolerance

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. : 7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : + 5.0

Check tolerance

cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm : 7.50 Tolerance mm : + 0.25

Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.5

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : 0 403 476 143

Injection pump

Pump designation : PES6MW100/720RS1239

EP type number : 0 413 406 238

Governor

Governer design. : RSV350...1200MWOA373

Governer no. : 0 420 085 256

Cust, part No. : 0260746002

Customer—spec. information Customer : MB-NFZ Motor : OM366LA Power KW : 62.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 10.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 47.0

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 3.0

Spreed

Tolerance

Tolerance cm3/1000 strokes : 3.5 Check tolerance	Check tolerance cm3/1000s. : 6.0
cm3/1000s. : 6.0	+
	CONTROL LEVER
	+ control lever
Rated speed rpm : 350	position degree : 119.0
Rack travel in mm : 7.50 Tolerance mm : + 0.25	RATED SPEED
Del. quantity	rack travel mm : 1.00 Tolerance mm : + 0.70
cm3/1000 strokes : 12.0 Tolerance	+ Rated speed rpm : 1450
cm3/1000 strokes : + 2.0	Hated speed Ipin : 1430
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5	+ Rated speed rpm : 1370
Spreed	Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes : 3.5	rack travel mm : 9.30
Charle And I many a	Rated speed rpm : 1250
cm3/1000s. : 5.5	Tolerance 1/min : + 8
	+
(D) SETTING OF THEFETTON DUMP	ASSEMBLY GOVERNOR SETTING
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1240
WZIII GOYCIGION	+ rack travel mm : 9.30
	+
	+ Rated speed rpm : 1340
GUIDE SLEEVE POSITION	+ Tolerance 1/min · +- 4
20115 055545 1 00111014	+ Tolerance 1/min : + 4
SOLIC SECUL FOOLITOR	rack travel mm : 4.00
control lever	rack travel mm : 4.00
control lever position degree : - 3	+ rack travel mm : 4.00 + Rated speed rpm : 1241
control lever	f rack travel mm : 4.00
control lever position degree : - 3 Rated speed rpm : 800	rack travel mm : 4.00 Rated speed rpm : 1241 rack travel mm : 9.30
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65	+ rack travel mm : 4.00 + Rated speed rpm : 1241
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35	rack travel mm : 4.00 Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	rack travel mm : 4.00 Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : +- 4
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Ameroid pressure hPa : - Del. quantity	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.0	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.0 Tolerance	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.0 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1343
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.0 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1343 Tolerance 1/min : + 4
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1243 rack travel mm : 4.00
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	Rated speed rpm : 1241 rack travel mm : 9.30 Rated speed rpm : 1341 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1242 rack travel mm : 9.30 Rated speed rpm : 1342 Tolerance 1/min : + 4 rack travel mm : 4.00 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1243 rack travel mm : 9.30 Rated speed rpm : 1343 Tolerance 1/min : + 4

Rated speed rpm	:		1348
Tolerance 1/min	:	+-	4
rack travel mm	:		4.00

Rated speed	rpm	:	1249
rack travel	MA	:	9.30

Rated speed rpm	:		1349
Tolerance 1/min	:	+	4
rack travel mm	:		4.00

LOW IDLE

Setting point w/out bumper spring

Rated	speed	rpm	:	100
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CRT mm min. : > 19.00

Testing:

Rated speed rpm	:	350
rack travel mm	:	7.50
Tolerance am	: +	- 0.25

TORQUE CONTROL

Rated speed rpm		1200
rack travel mm	:	10.30
Tolerance mm	:	← 0.05

Rated speed rpm	:		600
rack travel men	:		10.30
Tolerance mm	:	+	0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure			
hPa	:		_
Rated speed rpm	:		600
Del. quantity			
cm3/1000 strokes	:		28.0
Tolerance			
cm3/1000 strokes	•	+	1.5
Check tolerance			
cm3/1000s.	:	+-	4.0
Spreed			
Tolerance			
cm3/1000 strokes	:		5.0
Check tolerance			
cm3/1000s.	:		7.0

STARTING FUEL DELIVERY

Rated speed rpm Del. quantity	:	100	
cm3/1000 strokes Tolerance	:	83.0	
cm3/1000 strokes Check tolerance	: +	- 5.0	
cm3/1000s.	: +	- 8.0	

LOW IDLE

Rated speed rpm	:	350
Rack travel in mm Tolerance mm Del. quantity	: +	7.50 - 0.25
cm3/1000 strokes	:	12.0
Tolerance cm3/100C strokes	: +	- 2.0
Check tolerance cm3/1000S. Spreed	: +	- 4.5
Tolerance cm3/1000 strokes	:	3.5
Check tolerance cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.12.97 Test oil : ISO 4113

Combination No. : 0 402 066 711

Injection pump

Pump designation : PES6P120A120RS3358

EP type number : 0 412 026 784

Governor

Governer design. : RSV475...1100P2A661

6overner no. : 0 421 833 581

Cust. part No. : 3283574

Customer—spec. information
Customer : CUMMINS
Motor : 68TAA ELITE
Power KW : 139.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : ← 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0

Overflow quantity

min. l/h : 100 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 6.75 Tolerance : +- 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 11.80 Tolerance mm : + 0.05 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 Rated speed rpm : 475 Rack travel in mm : 5.80 Tolerance mm : + 0.10 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000s. : 6.0 Check tolerance cm3/1000s. : 9.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR
Cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 Rated speed rpm : 475 Rack travel in mm : 5.80 Tolerance mm : + 0.10 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. ; + 4.5 Spreed Tolerance cm3/1000s. ; + 4.5 Spreed Tolerance cm3/1000s. ; - 4.5 Spreed Tolerance cm3/1000s. ; - 9.0
Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 Rated speed rpm : 475 Rack travel in mm : 5.80 Tolerance mm : + 0.10 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
Tolerance cm3/1000 strokes: 4.0 Check tolerance cm3/1000s.: 7.5 Rated speed rpm: 475 Rack travel in mm: 5.80 Tolerance mm: + 0.10 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s.: + 4.5 Spreed Tolerance cm3/1000 strokes: 6.0 Check tolerance cm3/1000 strokes: 9.0
Check tolerance cm3/1000s. : 7.5 Rated speed rpm : 475 Rack travel in mm : 5.80 Tolerance mm : + 0.10 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 (B) SETTING OF INJECTION PUMP
Rated speed rpm : 475 Rack travel in mm : 5.80 Tolerance mm : + 0.10 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. ; + 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 (B) SETTING OF INJECTION PUMP
Rack travel in mm: 5.80 Tolerance mm: + 0.10 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes: 6.0 Check tolerance cm3/1000 strokes: 9.0
Tolerance mm : + 0.10 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 (B) SETTING OF INJECTION PUMP
cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 (B) SETTING OF INJECTION PUMP
cm3/1000S. : + 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000S. : 9.0 (B) SETTING OF INJECTION PUMP
Tolerance cm3/1000 strokes: 6.0 Check tolerance cm3/1000S.: 9.0 (B) SETTING OF INJECTION PUMP
cm3/1000S. : 9.0 (B) SETTING OF INJECTION PUMP
GUIDE SLEEVE POSITION
control lever position degree : - 3 Rated speed rpm : 800
Rack travel in mm : 0.50 Tolerance mm : + 0.20
governor spring pre-tension click setting x : 5.25
FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 1100

Aneroid pressure hPa Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1600 : ← 1.0 : ← 3.0 : 4.0 : 7.5
CONTROL LEVER	
control lever position degree tolerance degree	
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 10.80 : 1145 : + 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1270 : + 15
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1400
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1280 : +- 15
LOW TOLE	

LOW IDLE

control lever position degree : 88.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 475 rack travel mm : 5.30 Tolerance mm : + 0.10

Testing:

Rated speed rpm : 475
rack travel mm : 5.80
Tolerance mm : + 0.10

rack travel mm : 2.00

Rated speed rpm Tolerance 1/min	: 635 : +- 30
TOTOL CHARGO THE THE	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1100 : 11.80 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.80 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1600 : 11.80 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 8.30 : + 0.20
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 1000 : 11.30 : +- 0.20
Pressure hPa rack travel mm Tolerance mm	: 450 : 9.00 : ← 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	: 1600
Rated speed rpm Tolerance	: 750
cm3/1000 strokes	: ← 3.0
Check tolerance cm3/1000s.	: + 6.0
Spreed	
Tolerance cm3/1000 strokes	: 12.0
Check tolerance cm3/1000s.	: 16.0

Aneroid pressure hPa Rated speed rpm Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : ← 2.0 : ← 4.0
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.25 : + 0.75 : + 20.0 : + 25.0
LOW IDLE	
Rated speed rpm	: 475
Rack travel in mm Tolerance mm Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 0.10
End of test speci	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 18.12.97 : ISO 4113

Combination No. : 0 402 076 820

Injection pump

Pump designation : PES6P120A720LS3395

EP type number : 0 412 026 806

Governor

Governer design. : RSV350...1200P0A688

Governer no. : 0 421 833 610

Cust. part No. : 315862F91

Customer-spec. information

: FINCANTIERI Customer

: L 1306 T 2 MSD Motor

: 370.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40

Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 har Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.55 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

Tolerance m/s : ← 0.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 15.25

: +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 276.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: +- 4.0 cm3/1000s.

Spreed

Tolerance

6.0 cm3/1000 strokes :

Check tolerance cm3/1000S.

9.0

Rated speed rom 350

7.00 Rack travel in mm : : + 0.10 Tolerance mm Del. quantity

cm3/1000 strokes : 18.0

Tolerance

cm3/1000 strokes : +-3.0

Check tolerance

cm3/1000S. 6.0

Spreed Tolerance

cm3/1000 strokes : 10.0

Check tolerance

cm3/1000S. 14.0

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : - 3

governor spring

pre-tension

5.00 click setting x

FULL LOAD DELIVERY AT FULL LOAD STOP

1200 Rated speed rpm

Aneroid pressure

1300 hPa

Del. quantity

cm3/1000 strokes : 276.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.: **←** 4.0

Spreed

Tolerance

6.0 cm3/1000 strokes :

Check tolerance

9.0 cm3/1000S.

RATED SPEED

14.20 rack travel mm Rated speed rpm 1245

Tolerance 1/min

rack travel mma 0.85 : +- 0.55 Tolerance mm Rated speed rpm 1650

rack travel mm 4.00 : 1500 Rated speed rpm

Tolerance 1/min

LOW IDLE

Setting point w/out bumper spring

Rated speed rpm 350 rack travel mm 7.50 : + 0.10 Tolerance mm

Testing:

Rated speed rpm 350 7.00 rack travel mm Tolerance mm : ← 0.10

TORQUE CONTROL

1200 Rated speed rpm rack travel mm 15.25 Tolerance mm : +- 0.05

Rated speed rpm 500 15.30 rack travel mm Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 600 Pressure hPa 1300 rack travel mma 15.25 Tolerance mm : + 0.05

Rated speed rpm 600 Pressure hPa 11.00 rack travel mm : + 0.10Tolerance mm

MEASUREMENT

Rated speed rpm : 600

Pressure hPa : 500 rack travel mm : 12.80 Tolerance mm : + 0.10

Pressure hPa : 900 rack travel mm : 14.65 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure : 1300 hPa Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 289.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000S. : + 6.0 Spreed Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. : 14.0

Aneroid pressure hPa

Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : 156.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000S. : +- 4.0

STARTING FUEL DELIVERY

ESS test: With 24 V solenoid activated, rack must reach start position in max. control lever setting.

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 410.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 350 Rack travel in mm: 7.00 Tolerance mn: \leftarrow 0.10 Del. quantity cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance : **←** 6.0 cm3/1000s. Spreed Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. 14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 23,12,97 : ISO 4113

Combination No. : 0 402 646 671

Injection pump

Pump designation : PE6P120A320RS7421

EP type number : 0 412 626 956

Governor

Governer design. : RQV275...1150PA1297K

Governer no.

: 0 421 815 524

Cust. part No. : 1316184/1

Customer-spec. information : DAF Customer

: PF 212 M Motor Power KW

: 205.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C : +-2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Tolerance bar : + 0.1

Overflow quantity

: 160 min. L/h

Tolerance l/h: +- 20.0

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

208.5 bar

Tolerance bar : **←** 1.5

607

Test Lines : 1 680 750 089

3.0

Outside diameter : 8.0

x inside diameter :

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

: 4.85 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50

: +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 850

Rack travel in mm: 12.35 Tolerance mm : +- 0.05

	+ guide sleeve
Del. quantity	
cm3/1000 strokes : 231.0	
cms/ low strokes: 231.0	Tolerance mm : + 0.25
Tolonopo	Poted aread was 4/00
Tolerance	+ Rated speed rpm : 1480
cm3/1000 strokes : - 1.0	guide sleeve
Charl Astronom	travel mm : 13.50
Check tolerance	+ Tolerance mm : + 0.50
cm3/1000s. : +- 4.0	†
On and	CUITAGE OF FELIC POOTTY ON
Spreed	+ GUIDE SLEEVE POSITION
Telemente	†
Tolerance 5.0	
cm3/1000 strokes : 5.0	+ control lever
	position degree : - 1
Check tolerance	Rated speed rpm : 1329
cm3/1000s. : 9.0	†
	+ Rack travel in mm : 11.10
	+ Tolerance mm : + 2.70
	+
Rated speed rpm : 275	
B 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm: 4.90	†
Tolerance and : + 0.10	+ Rated speed rpm : 850
Del. quantity	+ Aneroid pressure
cm3/1000 strokes : 16.0	+ hPa : 1500
Tolerance	+ Del. quantity
cm3/1000 strokes : + 3.0	+ cm3/1000 strokes : 231.0
Check tolerance	+ Tolerance
cm3/1000s. : +- 6.0	+ cm3/1000 strokes : ← 1.0
Spreed	+ Check tolerance
Tolerance	+ cm3/1000s. : + 4.0
cm3/1000 strokes : 8.0	+ Spreed
Check tolerance	+ Tolerance
cm3/1000s. : 12.0	- cm3/1000 strokes : 5.0
	+ Check tolerance
	+ cm3/1000s. : 9.0
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	+
	+
	+ CONTROL LEVER
GUIDE SLEEVE TRAVEL	†
	+ control lever
Rated speed rpm : 1206	+ position degree : 118.0
guide sleeve	+ tolerance degree : +- 4.0
travel mm : 10.12	†
Tolerance mm : + 0.15	+ RATED SPEED
	+ rack travel mm : 11.10
Rated speed rpm : 275	+ Rated speed rpm : 1195
guide sleeve	+ Tolerance 1/min : +- 5
travel mm : 1.71	Check
Tolerance mm : + 0.20	+ speed 1/min : +- 10
	†
Rated speed rpm : 813	+ rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1300
travel mm : 6.81	† Tolerance 1/min : + 15
Tolerance mm : + 0.25	+ Check
	+ speed 1/min : + 20
Rated speed rpm : 450	+
	+ rack travel mm : 0.70

Tolerance mm Rated speed rpm	: ← 0.70 : 1400
LOW IDLE	~
control lever position degree tolerance degree	: 71.0 : ← 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 175
CRT mm min.	: > 7.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm	: 350
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 850 : 12.35 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.15 : +- 0.10
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.25 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 650 : 11.50 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 10.85 : + 0.10

1150

: + 0.10

ANEROID/ALTITUDE	
COMPENSATOR TEST	-

SETTING

Rated speed rpm	:	875
Pressure hPa	:	1500
rack travel mm	:	12.35
Tolerance mm	:	← 0.10

Rated speed rpm	:	875
Pressure hPa	:	-
rack travel mm	:	8.00
Tolerance mm	: +	-0.10

MEASUREMENT

Rated	speed	rpm	:	875
Press	ure hPa	1	:	420

Pressure hPa : 420 rack travel mm : 11.35 Tolerance mm : + 0.05

Pressure hPa : 150 rack travel mm : 9.20 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1500 hPa Rated speed rpm 1130 Del. quantity cm3/1000 strokes : 207.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 :

rack travel mm	: 12.15
Tolerance mm	: ← 0.10

Aneroid pressure
hPa : Rated speed rpm : 600
Del. quantity
cm3/1000 strokes : 138.0

Rated speed rpm :

Tolerance mm

rack travel mm : 12.10

cm3/1000 strokes	: +-	1.0
Check tolerance cm3/1000s.	: +-	4.0
Spreed Tolerance		
cm3/1000 strokes Check tolerance	:	8.0
cm3/1000s.	:	12.0

LOW IDLE

Rated speed rpm	•	275
Rack travel in man Tolerance man Del. quantity	: +-	4.90 0.10
cm3/1000 strokes	:	16.0
cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s. Spreed	: +-	6.0
Tolerance cm3/1000 strokes Check tolerance	:	8.0
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 19.12.97 : ISO 4113

Combination No. : 0 402 646 990

Injection pump

Pump designation : PE6P130A720RS7225 EP type number : 0 412 636 817

Governor

Governer design. : RQV300...950PA975

: -2K

Governer no.

: 0 421 815 310

Cust. part No. :

Customer-spec. information

: IVECO-FRANCE Customer : 8210.42.369 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

Tolerance bar : **←** 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : ← 1.0

: 5.05 Prestroke mm : **←** 0.05 Tolerance mm Check

: **←** 0.10 tolerance mm

Rack travel in mm: 12.00 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Check

tolerance *NW : ← 0.40

Barrel no. 1

BASIC SETTING

Rated speed rpm : 950

Rack travel in mm: 12.15 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 269.0

	+ Rated speed rpm : 1400
Tolerance	- guide sleeve
cm3/1000 strokes : + 1.0	
·	+ Tolerance mm : +- 0.50
Check tolerance	+
$cm3/1000s.$: \leftarrow 4.0	
	GUIDE SLEEVE POSITION
Spreed	†
Tolerance	†
cm3/1000 strokes : 5.0	<pre>control lever position degree : - 1</pre>
CHO/ 1000 Strokes . J.0	Rated speed rpm : 1210
Check tolerance	T Raceu speed rpiii . 1210
cm3/1000s. : 9.0	Rack travel in mm: 8.00
	Tolerance mm : + 2.70
	Total alloc link
Rated speed rpm : 300	FULL LOAD DELIVERY AT FULL LOAD STOP
	+
Rack travel in mm : 4.60	
Tolerance mm : + 0.10	The second secon
Del. quantity	+ hPa : 1000
cm3/1000 strokes : 27.0	1 0000 40000
Tolerance	+ cm3/1000 strokes : 269.0
$cm3/1000$ strokes : \leftarrow 3.0	+ Tolerance
Check tolerance	+ cm3/1000 strokes : +- 1.0
$cm3/1000s. : \leftarrow 7.0$	+ Check tolerance
Spreed	+ cm3/1000s. : + 4.0
Tolerance	+ Spreed
cm3/1000 strokes : 8.0	1
Check tolerance cm3/1000s. : 12.0	+ cm3/1000 strokes : 5.0
CM3/10005. : 12.0	
	+ cm3/1000s. : 9.0
(B) SETTING OF INJECTION PUM	→
WITH GOVERNOR	
	+ CONTROL LEVER
GUIDE SLEEVE TRAVEL	+ control lever
	position degree : 114.0
Rated speed rpm : 1005	+ tolerance degree : +- 4.0
guide sleeve	+
travel mm : 8.63	+ RATED SPEED
Tolerance mm : + 0.15	+ rack travel mm : 11.10
	+ Rated speed rpm : 995 _
Rated speed rpm : 300	+ Tolerance 1/min : + 5
guide sleeve	+ Check
travel mm : 1.65	+ speed 1/min : +- 10
Tolerance mm : + 0.20	†
Rated speed rom : 740	+ rack travel mm : 4.00 + Rated speed rpm : 1095
	, , , , , , , , , , , , , , , , , , ,
guide sleeve travel mm : 5.98	+ Tolerance 1/min : + 15 + Check
Tolerance mm : + 0.25	+ speed 1/min : + 20
TOTAL CHILD IN . TO U.E.	T Specu (/#III) : T 20
Rated speed rpm : 490	rack travel mm : 0.50
guide sleeve	Tolerance mm : + 0.50
travel mm : 3.70	Rated speed rpm : 1200
Tolerance mm : +- 0.25	
551 - 1055 1788	rack travel mm : 4.00
	I compression to temp

LOW IDLE

control lever

69.0 position degree : tolerance degree : +-4.0

Setting point w/out bumper spring

Rated speed rpm : 100

CRT mm min. : > 6.20

Testing:

Rated speed rom 300 rack travel mm 4.60 : Tolerance man : **←** 0.10

Rated speed rom 400

TORQUE CONTROL

950 Rated speed rom rack travel mm 12.15 : **←** 0.05 Tolerance mm

Rated speed rpm 700 rack travel mm 12.15 Tolerance mm : + 0.10

Rated speed rpm 550 11.95 rack travel mm Tolerance mm : + 0.15

Rated speed rpm 350 rack travel mm 11.60 : **←** 0.15 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 950 Pressure hPa 1000 12.15 rack travel mm Tolerance mm : + 0.05

950 Rated speed rpm Pressure hPa 9.00 rack travel mm : Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm 950

Pressure hPa 300 rack travel mm 10.05 Tolerance mm : +- 0.20

Pressure hPa 480 rack travel mm 11.65 : + 0.05Tolerance mm

Start interlock

Rated speed rpm :> 100 Rated speed rpm 240

Check

speed 1/min : > 80

Check

speed 1/min : < 260

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1000 Rated speed rpm 700

Del. quantity

cm3/1000 strokes : 271.0

Tolerance

cm3/1000 strokes : +- 4.0

Check tolerance

cm3/1000s. : +- 7.0

Aneroid pressure

1000 Rated speed rpm 550 rack travel mm 11.95 : + 0.15Tolerance mm Del. quantity cm3/1000 strokes : 275.5 Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +-5.0

Aneroid pressure

hPa Rated speed rpm 550

Del. quantity cm3/1000 strokes : 166.0

Tolerance

cm3/1000 strokes : +-

Check tolerance

cm3/1000s.: +-4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s. : \leftarrow 24.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 4.60 Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 27.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : \leftarrow 7.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 28.11.97 Test oil : ISO 4113

Combination No. : 0 402 648 706

Injection pump

Pump designation : PE8P120A320LS7830 EP type number : 0 412 628 844

Governor

Governer design. : RQ350...600/1150PA13

: 62

Governer no. : 0 421 801 826

Cust. part No. : 0280744002

Customer—spec. information Customer : MTU Motor : 8V183 Power KW : 441.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 077

Inlet press. bar : 2.0

Overflow quantity

min. l/h : 175 Tolerance l/h : ← 20.0

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 8-7-2-6-3-5-4-1

Phasing : 0-45-90-135-180-225

: -270-315

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 14.85 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 312.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +-- 4.0

	guide sleeve
Spreed	† travel mm : 13.50
	† Tolerance mm : + 0.50
Tolerance	+
cm3/1000 strokes : 5.0	Rated speed rpm : 748
	# guide sleeve
Check tolerance	+ travel nn : 7.15
cm3/1000s. : 9.0	
	GUIDE SLEEVE POSITION
Rated speed rpm : 350	T GOIDE SEELVE FOOTFICH
Mateu speed rps . 550	I
Rack travel in mm : 4.00	Control lever
Tolerance mm : + 0.10	
Del. quantity	Rated speed rpm : 850
cm3/1000 strokes : 19.0	
Tolerance	Rack travel in mm: 18.00
cm3/1000 strokes : +- 3.0	Tolerance mma : + 0.80
Check tolerance	.
$cm3/1000s$. : \leftarrow 6.0	
Spreed	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	+
cm3/1000 strokes : 8.0	Rated speed rpm : 1150
Check tolerance	+ Aneroid pressure
cm3/1000s. : 12.6	
	+ Del. quantity
	+ cm3/1000 strokes : 312.0
(B) SETTING OF INJECTION PUR	
WITH GOVERNOR	
	+ CMD/IUUU STPOKES : +- 1.U
MITTI GOVERNOON	
	+ Check tolerance
GUIDE SLEEVE TRAVEL	Check tolerance cm3/1000s. : + 4.0 Spreed
GUIDE SLEEVE TRAVEL	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : - 0.10 Rated speed rpm : 685	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve travel mm : 7.05	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1330
Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve travel mm : 7.05 Tolerance mm : 7.05 Tolerance mm : + 0.10	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve travel mm : 7.05 Tolerance mm : + 0.10 Rated speed rpm : 507	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1330 Tolerance 1/min : + 15
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve travel mm : 7.05 Tolerance mm : + 0.10 Rated speed rpm : 507 guide sleeve travel mm : 7.05 Tolerance mm : + 0.10	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1330 Tolerance 1/min : + 15 rack travel mm : 0.50
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve travel mm : 7.05 Tolerance mm : + 0.10 Rated speed rpm : 507 guide sleeve travel mm : 507 guide sleeve travel mm : 507	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1330 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : 0.50 Tolerance mm : 0.50
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve travel mm : 7.05 Tolerance mm : + 0.10 Rated speed rpm : 507 guide sleeve travel mm : 7.05 Tolerance mm : + 0.10	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1330 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : 0.50 Tolerance mm : + 0.50
GUIDE SLEEVE TRAVEL Rated speed rpm : 1208 guide sleeve travel mm : 7.54 Tolerance mm : + 0.15 Rated speed rpm : 350 guide sleeve travel mm : 3.25 Tolerance mm : + 0.20 Rated speed rpm : 1150 guide sleeve travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 685 guide sleeve travel mm : 7.05 Tolerance mm : + 0.10 Rated speed rpm : 507 guide sleeve travel mm : 507 guide sleeve travel mm : 507	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER CONTROL LEVER control lever position degree : 101.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.80 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1330 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : 0.50 Tolerance mm : + 0.50

LOW IDLE

control lever

position degree : 72.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 250

CRT mm min. :> 6.00

Testina:

Rated speed rpm : 350 rack travei mm : 4.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 430
Tolerance 1/min : → 20

TORQUE CONTROL

Rated speed rpm : 1150
rack travel mm : 14.85
Tolerance mm : + 0.05

Rated speed rpm : 750
rack travel mm : 14.85
Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : -

Rated speed rpm : 500
Pressure hPa : 400
rack travel mm : 1.20
Tolerance mm : + 0.05

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 1200 rack travel mm : 5.40 Tolerance mm : + 0.15

Start interlock

Rated speed rpm : > 260 Rated speed rpm : < 280

Check

speed 1/min : > 250

Check

speed 1/min : < 290

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 2000 Rated speed rpm : 750

Del. quantity cm3/1000 strokes : 309.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance cm3/1000s. : +- 6.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 121.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance
cm3/1000s. : +- 4.0
Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 330.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm : 4.00 Tolerance mm : + 0.10

Del. quantity
cm3/1000 strokes : 19.0
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.12.97 Test oil : ISO 4113

Combination No. : 0 402 676 833

Injection pump

Pump designation : PE6P120A320RS7426 EP type number : 0 412 626 958

Governor

Governer design. : RSV300...1100P1A650

: 0 421 833 567 Governer no.

Cust. part No. : 3826502 PO4 v.06/97

Customer-spec. information Customer : PENTA

: TWD 1031 VE Motor

Power KW : 235.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C : + 2.0Tolerance °C

: 2 417 413 078 Overflow valve

2.5 Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

300 min. L/h Tolerance L/h : +- 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

: 1 680 750 089 Test lines

Outside diameter : 8.0

x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm : ← 0.05

Check

tolerance mm : + - 0.10

Rack travel in mm : 7,40 : +- 0.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

> : -300 : +- 0.50

Tolerance Check

tolerance *NW : + - 0.75

Start of delivery mark

Tolerance : **←** 0.50

Check tolerance *NH	: + 0.75
Barrel no.	: 1
BASIC SETTING	
Rated speed rpm	: 1050
Rack travel in mma Tolerance mma	: 12.00 : + 0.05
Del. quantity cm3/1000 strokes	: 292.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: + 4.0
Spreed	
Tolerance cm3/1000 strokes	: 7.0
Check tolerance cm3/1000s.	: 11.0
Rated speed rpm	: 300
Rack travel in man Tolerance mma Del. quantity	: 4.60 : + 0.10
cm3/1000 strokes Tolerance	: ?2.0
cm3/1000 strokes Check tolerance	: ← 3.0
cm3/1000s. Spreed	: ← 6.0
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 8.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP
CITAL SI FEIE DOCT	

control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 4.25FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure : 1500 hPa Del. quantity cm3/1000 strokes : 292.0 Tolerance cm3/1000 strokes : \leftarrow 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 7.0 Check tolerance cm3/1000s. : 11.0 CONTROL LEVER control lever position degree : 55.0 tolerance degree : + 4.0 control lever position degree : 107.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.00
Rated speed rpm : 1080
Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm : 1125
Tolerance 1/min : + 15 rack travel mm : 0.85
Tolerance mm : ← 0.55
Rated speed rpm : 1250

LOW IDLE

GUIDE SLEEVE POSITION

control lever position degree : 73.0

tolerance degree : + 4.0

control lever

position degree : 23.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 300 rack travel mm : 4.10 Tolerance mm : + 0.10

Testing:

Rated speed rom : 300 rack travel mm : 4.60 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 360
Tolerance 1/min : +- 30

TORQUE CONTROL

Rated speed rpm : 1050 rack travel mm : 12.00 Tolerance mm : + 0.05

Rated speed rpm : 700 rack travel mm : 12.00 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 12.00
Tolerance mm : + 0.10

Rated speed rpm : 500
Pressure hPa : rack travel mm : 7.40
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 840 rack travel mm : 4.10 Tolerance mm : + 0.20

Pressure hPa : 220 rack travel mm : 0.25 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1500 Rated speed rpm : 700 Del. quantity

cm3/1000 strokes : 328.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. : \leftarrow 6.0

Spreed Tolerance

cm3/1000 strokes : 9.0

Check tolerance

cm3/1000s. : 13.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 188.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000S.

: +- 4.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 4.60
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 22.0
Tolerance
cm3/1000 strokes: + 3.0
Check tolerance
cm3/1000s: + 6.0

Spreed Tolerance

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 23.12.97 Test oil : ISO 4113

Combination No. : 0 402 678 840

Injection pump

Pump designation : PE8P12OA72OLS7446 EP type number : 0 412 628 931

6overnor

Governer design. : RSV350...1100P8A652

: -1

Governer no. : 0 421 833 570

Cust. part No. : 1411028

Customer spec. information Customer : SCANIA Motor : DSI1468M

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Vibration damper

(RoBo diaphragm) : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1- 2A- 7- 3A- 4

: - 5A- 6- 8A

Phasing : 0-45-90-135-180

: -225-270-315

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance $: \leftarrow 0.10$

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 14.15 Tolerance mm: : + 0.05	FULL LOAD DELIVERY AT FULL LOAD
Del. quantity cm3/1000 strokes : 279.0	Rated speed rpm : 700 Aneroid pressure hPa : 1500
Tolerance	hPa : 1500 Del. quantity cm3/1000 strokes : 279.0
cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s. : + 4.0	Check tolerance cm3/1000s. : + 4.0 Spreed
Spreed	Tolerance cm3/1000 strokes : 8.0
Tolerance cm3/1000 strokes : 8.0	Check tolerance : 12.0
Check tolerance cm3/1000s. : 12.0	
	CONTROL LEVER
†	control lever
Rated speed rpm : 350	position degree : 58.0
	tolerance degree : + 4.0
Rack travel in mm: 5.60	total direct degree 4.0
Tolerance am : + 0.10 +	control Lever
Del. quantity +	position degree : 108.0
cm3/1000 strokes : 42.0	tolerance degree : +- 4.0
Tolerance +	totel diffe degree 4.0
cm3/1000 strokes : + 3.0 +	RATED SPEED
Check tolerance +	rack travel mm : 13.15
cm3/1000s. : + 6.0	Rated speed rpm : 1145
Spreed +	
Tolerance +	Check
cm3/1000 strokes : 4.0 +	speed 1/min : ← 10
Check tolerance	•
cm3/1000s. : 8.0	rack travel mm : 4.00 Rated speed rpm : 1235
1	Tolerance 1/min : + 15
(B) SETTING OF INJECTION PUMP	Check
WITH GOVERNOR	speed 1/min : + 20
MILIU GOAEVIAOK	speed itmin : The 20
†	
+	rack travel mm : 0.85
	Tolerance mm : + 0.55
GUIDE SLEEVE POSITION +	Rated speed rpm : 1400
1	,
	rack travel mm : 4.00
control lever	Poted annual annual 4245
	Rated speed rpm : 1265
position degree : -3 +	Tolerance 1/min : ← 15
Rated speed rpm : 800	Check
1	speed 1/min : ← 20
Rack travel in mm: 0.50	Special Company of the Company of th
Tolerance am : + 0.20 +	
+	
governor spring +	
pre-tension +	LOW IDLE
click setting x : 6.00	
CLICK Setting X : 0.00	
+	

STOP

control lever position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0 tolerance degree : + 4.0 Setting point w/out bumper spring 350 Rated speed rpm : rack travel mm 5.10 : + 0.10 Tolerance mm Testing: Rated speed rpm 350 5.60 rack travel mm : + 0.10 Tolerance ma 2.00 rack travel mm Rated speed rom : Tolerance 1/min : + TORQUE CONTROL 700 Rated speed rpm 14.15 rack travel min Tolerance mm : + 0.05 Rated speed rom : 1100 : 14.15 rack travel mm Tolerance mm : + 0.19 ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm 1500 Pressure hPa • 14.15 rack travel mm : +- 0.05 Tolerance mm 500 Rated speed rom Pressure hPa 9,40 rack travel mm Tolerance mm : ← 0.20 MEASUREMENT Rated speed rpm 500 360 Pressure hPa 9.70 rack travel mm : + 0.20Tolerance mm

Pressure hPa 840 rack travel mm : 12.45 Tolerance mm : + - 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1500 hPa 1100 Rated speed rpm Del. quantity

cm3/1000 strokes : 241.0

Tolerance

cm3/1000 strokes : +- 4.0 Check tolerance cm3/1000s. : + 6.0

Aneroid pressure 500 Rated speed rpm Del. quantity cm3/1000 strokes : 173.0

Tolerance cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : + 4.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm: 5.60 Tolerance mm : **←** 0.10 Del. quantity cm3/1000 strokes : 42.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed

Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 19.12.97 Test oil : ISO 4113

Combination No. : 0 402 746 640

Injection pump

Pump designation : PES6P12OA32ORS7359 EP type number : 0 412 726 925

Governor

Governer design. : RQV300...1050PA1191

Governer no. : 0 421 814 114

Cust. part No. : CCEP 5147C 66-223

Customer-spec. information

Customer : RENAULT V.I.
Motor : MIDR 06.20.45 C4

Power KW : 188.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.70
Tolerance mm : + 0.50
Check

tolerance mm : + 0.10

Rack travel in mmm : 20.25 Tolerance mmm : ← 0.75

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Start of delivery mark

*NW after s.o.d. : -0.95 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

CRT ZERO POSITION

Rack travel in mm : 12.70
Tolerance mm : + 0.05

BASIC SETTING

Rated speed rpm	: 700 +	guide sleeve
		travel mm : 2.40
Del. quantity	+	Tolerance mm : \leftarrow 0.25
cm3/1000 strokes	: 199.0	
_	+	Rated speed rpm : 415
Tolerance	+	guide sleeve
cm3/1000 strokes	: ← 1.0 +	travel mm : 3.28
-4 .	+	Tolerance nm : +- 0.25
Check tolerance	t	
cm3/1000s.	: ← 4.0 †	Rated speed rpm : 460
	†	guide sleeve
Spreed	ţ	travel mm : 3.86
T-1	†	Tolerance mm : + 0.25
Tolerance	: 5.0	Debad as all non a 1/40
cm3/1000 strokes	; 5.0	Rated speed rpm : 1460
Check tolerance		guide sleeve
cm3/1000s.	: 9.0	travel mm : 11.50 Tolerance mm : +- 0.50
CHO/ 10005.	; 7.0	Tolerance mm : + 0.50
	I	GUIDE SLEEVE POSITION
Rated speed rpm	: 300 \$	SOLDE OFFICE LOCALION
	+	
Rack travel in m	n: -7.20	control lever
Tolerance mm	: + 0.10	position degree : - 1
Del. quantity	+	Rated speed rpm : 1230
cm3/1000 strokes	: 31.0	•
Tolerance	+	Rack travel in mm : 11.70
cm3/1000 strokes	: ← 2.0 	Tolerance mm : +- 2.00
Check tolerance	+	
cm3/1000s.	: +	
Spreed	†	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	+	
cm3/1000 strokes	: 8.0 +	Rated speed rpm : 700
Check tolerance	12.0	Aneroid pressure
cm3/1000s.	: 12.0	hPa : 1000
	<u>†</u>	Del. quantity
(B) SETTING OF IN	ALIECTON DIMO	cm3/1000 strokes : 199.0
WITH GOVERNOR	MECITON LOUB	Tolerance cm3/1000 strokes : +- 1.0
MILL GOVEKNOK	I	cm3/1000 strokes : +- 1.0 Check tolerance
	I	cm3/1000s. : +- 4.0
GUIDE SLEEVE TRAN	JEI I	Spreed : +- 4.0
WINE OFFERE IKUI		Tolerance
Rated speed rpm	: 1140	cm3/1000 strokes : 5.0
guide sleeve	1	Check tolerance
travel mm	: 8.49	cm3/1000s. : 9.0
Tolerance mm	: + 0.25	. ,
		. , , , ,
Tolerance mm Rated speed rpm guide sleeve	: + 0.25 : 300	CONTROL LEVER
Tolerance mm Rated speed rpm guide sleeve travel mm	: + 0.25 : 300 : 1.33	CONTROL LEVER
Tolerance mm Rated speed rpm guide sleeve	: + 0.25 : 300	CONTROL LEVER
Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: + 0.25 : 300 : 1.33 : + 0.25	CONTROL LEVER control lever position degree : 302.0
Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: + 0.25 : 300 : 1.33	CONTROL LEVER
Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: ← 0.25 : 300 : 1.33 : ← 0.25 : 754	CONTROL LEVER control lever position degree : 302.0 tolerance degree : + 4.0
Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: + 0.25 : 300 : 1.33 : + 0.25 : 754 : 6.10	CONTROL LEVER control lever position degree : 302.0 tolerance degree : + 4.0 RATED SPEED
Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: ← 0.25 : 300 : 1.33 : ← 0.25 : 754	CONTROL LEVER control lever position degree : 302.0 tolerance degree : + 4.0 RATED SPEED rack travel num : -1.00
Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: + 0.25 : 300 : 1.33 : + 0.25 : 754 : 6.10 : + 0.25	CONTROL LEVER control lever position degree : 302.0 tolerance degree : + 4.0 RATED SPEED

rack travel mm : -8.70
Rated speed rpm : 1295
Tolerance 1/min : + 15

rack travel mm : -12.20 Tolerance mm : +- 0.50 Rated speed rpm : 1400

LOW IDLE

control lever
position degree : 266.0
tolerance degree : + 4.0

Testing:

Rated speed rpm : 300 rack travel mm : -7.20 Tolerance mm : + 0.10

Rated speed rpm : 200

CRT mm max. : < -4.80

Rated speed rpm : 370

TORQUE CONTROL
Rated speed rpm : 700

Rated speed rpm : 1050
Tolerance man : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : 1000

Rated speed rpm : 500
Pressure hPa : rack travel mm : -1.20
Tolerance mm : +- 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 140
rack travel mm : -0.80
Tolerance mm : + 0.15

Pressure hPa : 200
rack travel nm : -0.35
Tolerance nm : +- 0.05

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 220

Check

speed 1/min :> 80 Check speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1000 Rated speed rpm : 1050

Del. quantity

cm3/1000 strokes : 201.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 6.0

Aneroid pressure

hPa : -Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 165.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 300

G28

Rack travel in mm	:		-7.20
Tolerance ma	:	+-	0.10
Del. quantity cm3/1000 strokes			31.0
Tolerance	•		51.0
cm3/1000 strokes	:	+-	2.0
Check tolerance			
cm3/1000s.	:	+-	5.0
Spreed			
Tolerance			
cm3/1000 strokes	:		8.0
Check tolerance			
cm3/1000s.	:		12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 19.12.97 : ISO 4113

Combination No. : 0 402 846 081

Injection pump

Pump designation : PE6P120A320RS8054 EP type number : 0 412 826 039

Governor

Governer design. : RQV300...950FA1355k

Governer no.

: 0 421 815 962

Cust. part No. : 11127026

: -P04 v.12.97

Customer-spec. information

Customer : VCE

: TD122KLE

Motor Power KW

: 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5

Tolerance bar : + 0.1

Overflow quantity

min. l/h : 150
Tolerance l/h : +- 20.0

Test nozzle holde

assembly

: 1 688 901 103

Opening pressure

bar

Tolerance bar : + 1.5

: 208.5

H₀2

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter :

2.0

x Length mm

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : +- 0.05 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 11.00

: +- 0.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm :

950

	1	
Rack travel in mm Tolerance mm	: 11.70 : + 0.05	Rated speed rpm guide sleeve travel mm
Del. quantity cm3/1000 strokes	: 260.0	Toterance mm
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm guide sleeve travel mm Tolerance mm
Check tolerance cm3/1000s.	: +- 4.0	
Spreed	 ‡	GUIDE SLEEVE POS
Tolerance cm3/1000 strokes	: 8.0	control lever position degree Rated speed rpm
Check tolerance cm3/1000s.	: 11.0	Rack travel în m Tolerance mm
Rated speed rpm	: 300	FULL LOAD DELIVE
Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 0.10 : 80.0	Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed
cm3/1000 strokes Check tolerance cm3/1000s.	: 8.0	Tolerance cm3/1000 strokes Check tolerance cm3/1000s.
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	CONTROL LEVER
GUIDE SLEEVE TRAV	EL	control lever position degree
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1037 : 9.86 : + 0.15	tolerance degree control lever position degree
Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.61 : + 0.20	RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min
Rated speed rpm guide sleeve travel mm Tolerance mm	: 773 : 6.81 : + 0.25	rack travel mm Rated speed rpm Tolerance 1/min

: 4.00 : ← 0.25 : 1280 : 13.50 : + 0.50 NOITIE : - 1 : 1130 n'n: 11.52 : + 1.30 ERY AT FULL LOAD STOP : 950 : 1500 s : 260.0 s : + 1.0: +- 4.0 s: 8.0 : 11.0 e: + 64.0 e: + 4.0 : 117.0 e : + 4.0 : 10.70 : 985 : + 5 rack travel mm : 4.00
Rated speed rpm : 1080
Tolerance 1/min : + 15

: 500

rack travel mm Tolerance mm Rated speed rpm	: +- 0.50
LOW IDLE	
control lever position degree tolerance degree	: 70.0 : ← 4.0
control lever position degree tolerance degree	: 17.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 9.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 7.00 : +- 0.10
Rated speed rpm	: 400
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 950 : 11.70 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.20 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 850 : 11.90 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 11.10 : + 0.20
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	

rack travel mm Tolerance mm	: 12.20 : + 0.10
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 800 : - : 9.00 : ← 0.20
MEASUREMENT	
Rated speed rpm	: 800
Pressure hPa rack travel mm Tolerance mm	: 660 : 2.80 : + 0.20
Pressure hPa rack travel mm Tolerance mm	: 250 : 0.25 : + 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
rack travel mm Tolerance mm	: 11.90 : + 0.10
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 220.0 : + 1.0 : + 4.0
STARTING FUEL DEL	IVERY
Rated speed rom	• 100

Rated speed rpm : 100 rack travel mm : 9.00 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 165.0

H04

Rated speed rpm : 800 Pressure hPa : 1500

Tolerance		
cm3/1000 strokes	: +-	15.0
Check tolerance		
cm3/1000s	. +	19 0

LOW IDLE

Data damand man			700
Rated speed rpm	:		300
Rack travel in mm	:		7.00
Tolerance mm	:	+	0.10
Del. quantity			
cm3/1000 strokes	:		80.0
Tolerance			
cm3/1000 strokes	:	+-	3.0
Check tolerance			
cm3/1000s.	:	+	6.0
Spreed			
Tolerance			
cm3/1000 strokes	•		5.0
Check tolerance			
cm3/1000s.	:		8.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 23.12.97 Test oil : ISO 4113

Combination No. : 0 402 846 301

Injection pump

Pump designation : PE6P12OA32ORS85O8 EP type number : 0 412 826 201

Governor

Governer design. : RQV275...1000PA1099K

Governer no. : 0 421 815 983

Cust. part No. : 1287579/4

Customer—spec. information Customer : DAF Motor : WS 315 M Power KW : 315.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40Tolerance °C : \leftarrow 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 180
Tolerance L/h : +- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.35
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 13.35 Tolerance mm : + 0.05

H06

1	guide sleeve
Del. quantity cm3/1000 strokes : 321.5	travel mm : 2.27 Tolerance mm : + 0.25
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 334 guide sleeve travel mm : 3.08
Check tolerance cm3/1000s. : + 5.0	Tolerance mm : + 0.25
Spreed	Rated speed rpm : 400 guide sleeve travel mm : 3.92
Tolerance cm3/1000 strokes : 6.0	Tolerance mm : + 0.25 Rated speed rpm : 1310
Check tolerance cm3/1000s. : 12.0	guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Rated speed rpm : 275	GUIDE SLEEVE POSITION
Rack travel in mm : 5.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : + 3.0	control lever position degree : - 1 Rated speed rpm : 1130 Rack travel in mm : 12.70
Check tolerance cm3/1000s. : + 6.0	Tolerance mm : + 1.30
Spreed +	
Tolerance + cm3/1000 strokes : 8.0 +	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	Rated speed rpm : 980 Aneroid pressure hPa : -
Tolerance cm3/1000 strokes : 8.0 - Check tolerance -	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 13.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 13.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 5.0
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 13.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 13.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : 40.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 13.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : 40.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : 40.15	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 13.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm: 1050 guide sleeve travel mm: 9.89 Tolerance mm: + 0.20 Rated speed rpm: 275 guide sleeve travel mm: 2.14 Tolerance mm: + 0.15 Rated speed rpm: 692 guide sleeve travel mm: 6.45	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 13.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm: 1050 guide sleeve travel mm: 9.89 Tolerance mm: : 40.20 Rated speed rpm: 275 guide sleeve travel mm: 2.14 Tolerance mm: : 40.15 Rated speed rpm: 692 guide sleeve guide sleeve	Rated speed rpm : 980 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 321.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 12.0 CONTROL LEVER control lever position degree : 120.0

rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: 1150 : + 15 : 0.70 : + 0.70
LOW IDLE	
control lever position degree tolerance degree	: 76.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 175
CRT mm min.	: > 8.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : 5.80 : ← 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 405
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 980 : 13.35 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.75 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 12.05 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.00 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 400 : 11.95 : + 0.10

SETTING	
Rated speed rpm : 980 Pressure hPa : 1500 rack travel mm : 13.35 Tolerance mma : + 0.05	
Rated speed rpm : 980 Pressure hPa : - rack travel mm : 8.90 Tolerance mm : + 0.10	
MEASUREMENT	
Rated speed rpm : 980	
Pressure hPa : 750 rack travel mm : 12.25 Tolerance mm : 750 10.05	
Pressure hPa : 420 rack travel mm : 10.00 Tolerance mm : + 0.10	
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity	_
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance	_
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance	_
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance cm3/1000 strokes : + 2.0	_
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0	_
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance	_
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	
Aneroid pressure hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 13.0 rack travel mm : 12.05	-

Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0

LOW IDLE

Rated speed rpm : 275 Rack travel in mm : 5.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s.6.0 : +-Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance cm3/1000s. 13.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.12.97 Test oil : ISO 4113

Combination No. : 0 402 946 011

Injection pump

Pump designation : PES6P120A320RS8028 EP type number : 0 412 926 021

6oyernor

Governer design. : RQV275...1250PA1125K

Governer no. : 0 421 815 981

Cust. part No. : CCEP 5140A 66-205

Customer-spec. information

Customer : RENAULT V.I. Motor : MIDR 06.02.26L51

Motor Power KW : 132.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

Tolerance °C : 40 : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : ← 1.0

Prestroke mm : 5.00 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 11.00 Tolerance m : \leftarrow 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

*NW after s.o.d. : -0.25

: + 0.50 Tolerance

Check

tolerance *NW : + 0.75

: 1 Barrel no.

Beginning of delivery differende

betw. rack trav.

21.00

and maximum rack

travel 10.00 Difference * CS : 2.25

CRT ZERO POSITION

		† Tole
Rack travel in m	m: 12.60	Rate
Tolerance mm	: +- 0.05	+ guio
		+ trav
DACTO OFFITING		Tole
BASIC SETTING		+ Rate
Rated speed rpm	: 1250	guid
The second secon		+ trav
Del. quantity cm3/1000 strokes	s : 170.0	+ Tole
		. + Rate
Tolerance		+ guid
cm3/1000 strokes	s : +- 1.0	+ trav
51 1 1 1		. + Tole
Check tolerance		† .
cm3/1000s.	: + 4.0	+ Rate
		. + guid
Spreed		+ trav
Talananaa		+ Tole
Tolerance cm3/1000 strokes		†
Chis/ IUUU STrokes	5.0	+ Rate
		. + guid
Check tolerance		tra
cm3/1000s.	: 9.0	+ Tole
		· †
		T
Rated speed rpm	: 325	† enic
		+
Rack travel in m	mm: −6.60	+ cont
Tolerance mm	: ← 0.10	+ post
Del. quantity		+ Rate
cm3/1000 strokes	s : 41.0	+
Tolerance		+ Racl
cm3/1000 strokes	s : +- 2.0	+ Tole
Check tolerance		+
cm3/1000s.	: ← 6.0	+
Spreed		+ FULL
Tolerance		+
cm3/1000 strokes	3 : 8.0	Rate
Check tolerance		+ Anei
cm3/1000s.	: 12.0	+ hPa
		+ Del.
		+ cm3/
(B) SETTING OF I	INJECTION PUMP	+ Tole
WITH GOVERNOR		+ cm3/
		+ Chec
		+ cm3/
GUIDE SLEEVE TRA	IVEL	+ Spre
		+ Tole
Rated speed rpm	: 1355	+ cm3/
guide sleeve		Chec
travel mm	: 10.10	+ cm3/
Tolerance mm	: 10.10 : + 0.10	1
		+
Rated speed rpm	: 275	ļ
guide sleeve	2.3	CONT
travel mm	: 1.00	1
CIGYCL IMB	. 1.00	7

Tolerance mm	: +- 0.15
Rated speed rpm guide sleeve	: 929
travel mm Tolerance mm	: 6.80 : +- 0.20
Rated speed rpm guide sleeve	: 390
travel mm Tolerance mm	: 2.39 : + 0.20
Rated speed rpm guide sleeve	: 440
travel mm Tolerance mm	: 3.01 : + 0.20
Rated speed rpm guide sleeve	: 550
travel mm Tolerance mm	: 3.92 : ← 0.20
Rated speed rpm guide sleeve	: 1650
travel mm Tolerance mm	: 13.50 : ← 0.50
GUIDE SLEEVE POSI	TION
control lever position degree Rated speed rpm	: - 1 : 1430
Rack travel in mm Tolerance mm	: 10.90 : + 2.00
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	: 1250

Aneroid pressure
hPa : 1600
Del. quantity
cm3/1000 strokes : 170.0
Tolerance
cm3/1000 strokes : +- 1.0
Check tolerance
cm3/1000s. : +- 4.0
Spreed
Tolerance
cm3/1000 strokes : 5.0
Check tolerance
cm3/1000 strokes : 9.0

ONTROL LEVER

control lever		<u> </u>	Pressure hPa Tolerance mm	: 1600 : +- 0.10
position degree tolerance degree		‡	Rated speed rpm	
		1	Pressure hPa	_
RATED SPEED		+	rack travel mm	
rack travel mm		+	Tolerance mm	: +- 0.20
Rated speed rpm		†	****	
Tolerance 1/min	: ← 15	1	MEASUREMENT	
rack travel mm	: -8.60	I	Rated seed rpm	• 1250
Rated speed rpm	: 1470	1	ndeca seco i pir	. 1250
Tolerance 1/min	: ← 5	1	Pressure hPa	
		+	rack travel mm	: −3.70
rack travel mm		+	Tolerance mm	: + 0.20
Tolerance mm	: ← 0.55	. †	D	7/0
Rated speed rpm	: 1000	†	Pressure hPa rack travel mm	: 360 : -2.60
		I	Tolerance mm	:
		Į	TOCET GITCE MAIL	. , 0.05
LOW IDLE			Start interlock	
LOW INCE		Į	Start intertock	
		1	Rated speed rpm	: > 175
control lever		+	Rated speed rpm	
position degree	: 244.0	+		
tolerance degree	: ← 4.0	+	Check	
- 4.2		+	speed 1/min	: > 155
Testing:		†	Check	2/0
Rated speed rpm	• 325	Ī	speed 1/min	: < 260
rack travel mm	. <u>-6.60</u>	I		
Tolerance mm	: ← 0.10	1	FUEL DELIVERY CHA	RACTERISTICS
		+		
Rated speed rpm	: 200	+		
	4 5 00	+	Aneroid pressure	
CRT mm max.	: < -5.20	†	hPa	: 1600
Rated speed rpm	: 360	Ī	Rated speed rpm Del. quantity	: 650
raced speed (pil	. 500	I	cm3/1000 strokes	: 182.0
			Tolerance	. 102.0
TORQUE CONTROL		1	cm3/1000 strokes	: ← 3.0
Rated speed rpm	: 1250	+	Check tolerance	
		+	cm3/1000s.	: ← 6.0
Rated speed rpm	: 650	†		
rack travel mm Tolerance mm	: -1.10 : ← 0.10	†	and the velue	4 70
loterance mm	: 0.10	Ī	rack travel mm Tolerance mm	: -1.70 : +- 0.25
Rated speed rpm	: 350	I	TO LET GITLE MAIN	0.25
rack travel mm	: -1.70	1	-	
Tolerance mm	: ← 0.25	1	Aneroid pressure	
		+	hPa	: -
		+	Rated speed rpm	: 500
ANEROID/ALTITUDE		†	Del. quantity	44.
COMPENSATOR TEST		†	cm3/1000 strokes	: 116.0
		<u>†</u>	Tolerance cm3/1000 strokes	10
SETTING		I	Check tolerance	1.0
00112170		I	cm3/1000s.	: +- 4.0
Rated speed rpm	: 1250	1		

H12

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 125.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : -6.60 Tolerance mm : +- 0.10

Del. quantity

cm3/1000 strokes : 41.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 19.12.97 Test oil : ISO 4113

Combination No. : 0 402 946 013

Injection pump

Pump designation : PES6P120A320RS8028 EP type number : 0 412 926 021

Governor

Governer design. : RQV275...1250PA1189K

Governer no. : 0 421 815 974

Cust. part No. : CCEP 5146A 66-220

Customer-spec. information

Customer : RENAULT V.I.
Motor : MIDR 06.02.26Y41

Power KW : 184.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.00 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 11.00

Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

*NW after s.o.d. : -0.25

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

betw. rack trav.

mm : 21.00 and maximum rack

travel : 11.00 Difference * CS : 2.25

	+ Rated speed rpm : 275
	guide sleeve
CRT ZERO POSITION	travel mm : 1.10 Tolerance mm : + 0.25
	†
Rack travel in mm: 14.40	+ Rated speed rpm : 912
Tolerance mm : ← 0.05	+ guide sleeve
	+ travel mm : 6.79
	
BASIC SETTING	†
	+ Rated speed rpm : 412
Rated speed rpm : 1250	+ guide steeve
	+ travel mm : 2.53
Del. quantity	+ Tolerance mm : +- 0.25
cm3/1000 strokes : 276.0	+
	Rated speed rpm : 462
Tolerance	+ guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 3.16
Check tolerance	+
cm3/1000s. : +- 4.0	+ Rated speed rpm : 550
	+ guide sleeve
Spreed	+ travel mm : 3.97
	+ Tolerance mm : + 0.25
Tolerance	+
cm3/1000 strokes : 5.0	Rated speed rpm : 1630
	guide sleeve
Check tolerance	+ travel mm : 13.50
cm3/1000s. : 9.0	+ Tolerance mm : +- 0.50
	
	GUIDE SLEEVE POSITION
Rated speed rpm : 275	GUIDE SLEEVE POSITION
Rated speed rpm : 275	‡
Rated speed rpm : 275 Rack travel in mm : -7.60	GUIDE SLEEVE POSITION control lever
	‡
Rack travel in mm: -7.60	control lever
Rack travel in mm: -7.60 Tolerance mm: : + 0.10	control lever position degree : - 1
Rack travel in mm: -7.60 Tolerance mm: : + 0.10 Del. quantity	control lever position degree : - 1
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0	control lever position degree : - 1 Rated speed rpm : 1420
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0 (B) SETTING OF INJECTION PUMP	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance cm3/1000 strokes : + 1.0
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0 (B) SETTING OF INJECTION PUMP	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm: 1332	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm: 1332 guide sleeve	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Ameroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
Rack travel in mm: -7.60 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 47.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000 strokes: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm: 1332	control lever position degree : - 1 Rated speed rpm : 1420 Rack travel in mm : 13.50 Tolerance mm : + 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 276.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0

### Tolerance degree : +- 4.0 ### ATED SPEED Fack travel mm		
Societion degree	CONTROL LEVER	
Rated speed rpm : 1325 Tolerance 1/min : + 15 rack travel mm : -10.40 Rated speed rpm : 1480 Tolerance 1/min : + 5 rack travel mm : -13.90 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : + 4.0 Testing: Rated speed rpm : 275 rack travel mm : -7.60 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -0.75 Tolerance mm : -4.10	position degree	
Rated speed rpm : 1480 Tolerance 1/min : + 5 rack travel mm : -13.90 Tolerance mm : + 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 250.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 275 rack travel mm : -7.60 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25	rack travel mm Rated speed rpm	: 1325
Tolerance mm : +- 0.50 Rated speed rpm : 1600 LOW IDLE control lever position degree : 250.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 275 rack travel mm : -7.60 Tolerance mm : +- 0.10 Rated speed rpm : 200 CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : +- 0.10 Rated speed rpm : 350 rack travel mm : -0.75 Tolerance mm : -4.10 Tolerance mm : +- 0.25	Rated speed rpm	: 1480
control lever position degree : 250.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 275 rack travel mm : -7.60 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : -0.75 Tolerance mm : +- 0.10 Rated speed rpm : 350 rack travel mm : -0.75 Tolerance mm : +- 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : +- 0.25	Tolerance mm	: +- 0.50
position degree : 250.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 275 rack travel mm : -7.60 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25	LOW IDLE	
Rated speed rpm : 275 rack travel mm : -7.60 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25	position degree	
rack travel mm : -7.60 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25	Testing:	
CRT mm max. : < -6.60 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25	rack travel mm	: -7.60
Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25	Rated speed rpm	: 200
TORQUE CONTROL Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25 ANEROID/ALTITUDE	CRT mm max.	: < -6.60
Rated speed rpm : 1250 Rated speed rpm : 800 rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25 ANEROID/ALTITUDE	Rated speed rpm	: 380
rack travel mm : -0.75 Tolerance mm : + 0.10 Rated speed rpm : 350 rack travel mm : -4.10 Tolerance mm : + 0.25 ANEROID/ALTITUDE		: 1250
rack travel mm : -4.10 Tolerance mm : + 0.25 ANEROID/ALTITUDE	rack travel mm	: -0.75
	rack travel mm	: -4.10

SETTING	
Rated speed rpm Pressure hPa Tolerance mm	: 1250 : 1600 : + 0.10
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1000 : - : -4.40 : + 0.20
MEASUREMENT	
Rated speed rpm	: 1250
Pressure hPa rack travel mm Tolerance mm	: 240 : -3.60 : +- 0.20
Pressure hPa rack travel mm Tolerance mma	: 480 : -1.60 : +- 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 175 : < 240
Check speed 1/min Check	: > 155
speed 1/min	: < 260
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1600 : 300
cm3/1000 strokes Tolerance	: 287.0
cm3/1000 strokes Check tolerance	: + 3.0
cm3/1000s.	: +- 6.0
rack travel mm Tolerance mm	: -4.10 : + 0.25
Aneroid pressure	• _
nra Rated speed rpm Del. quantity	1000
cm3/1000 strokes Tolerance	: 181.0
INIPPANCE	01.0

Check tolerance : **←** 4.0 cm3/1000s.

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s.: + 19.0

LOW IDLE

Rated speed rpm : 275

Rack travel in mm: -7.60 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 47.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : + 6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 23.12.97 Test oil : ISO 4113

Combination No. : 0 402 946 030

Injection pump

Pump designation : PES6P120A720RS8049

EP type number : 0 412 926 031

60vernor

Governer design. : RQ750PA1299 Governer no. : 0 421 801 810

Cust. part No. : 1397781

Customer—spec. information Customer : SCANIA Motor : DSC1158A

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. *C : 40
Tolerance *C : +- 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 90 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0 x inside diameter : 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 14.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

Tolerance : + 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700	Check tolerance cm3/1000s. : 12.0
Rack travel in mm: 13.15 Tolerance mm: + 0.05	
+	CONTROL LEVER
Del. quantity cm3/1000 strokes : 363.0	control lever position degree : 22.0
Tolerance cm3/1000 strokes : +- 1.0	tolerance degree : +- 4.0 control lever
Check tolerance cm3/1000s. : ← 11.0	position degree : 83.0 tolerance degree : + 4.0
Spreed	ASSEMBLY GOVERNOR SETTING
Tolerance cm3/1000 strokes : 8.0	Rated speed rpm : 750 rack travel mm : 12.10
Check tolerance cm3/1000s. : 12.0	Rated speed rpm : 778
	Tolerance 1/min : + 4 rack travel mm : 4.00
‡	rack travel mm : 0.50
Rack travel in mm: 3.00 + Tolerance mm: ← 0.20 +	Tolerance mm : + 0.50 Rated speed rpm : 850
Del. quantity cm3/1000 strokes : 30.0	water open take
Tolerance	Rated speed rpm : 751
cm3/1000 strokes : \(\psi \) 4.0 + Check tolerance	rack travel mm : 12.10
cm3/1000s. : + 6.0 + 5	Rated speed rpm : 779 Tolerance 1/min : + 4
Tolerance cm3/1000 strokes : 5.0	rack travel mm : 4.00
Check tolerance	rack travel mm : 0.50
cm3/1000s. : 9.0	Tolerance mm : + 0.50 Rated speed rpm : 850
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	Rated speed rpm : 752 rack travel mm : 12.10
FULL LOAD DELEVEDY AT FULL LOAD STOR	Rated speed rpm : 780
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : + 4 rack travel mm : 4.00
Rated speed rpm : 700 +	rack travel mm : 0.50
hPa : 1500 +	Tolerance mm : +- 0.50
Del. quantity cm3/1000 strokes : 363.0	Rated speed rpm : 850
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 753
Check tolerance cm3/1000s. : + 11.0	rack travel mm : 12.10
Spreed	Rated speed rpm : 781
Tolerance + cm3/1000 strokes : 8.0 +	Tolerance 1/min : +- 4 rack travel mm : 4.00
	- च्या वा प्राप्त व विश्वप्रि

Rated speed rpm : 754 rack travel mm : 12.10

Rated speed rpm : 782
Tolerance 1/min : + 4
rack travel mm : 4.00

rack travel am : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 850

Rated speed rpm : 755 rack travel mm : 12.10

Rated speed rpm : 783
Tolerance 1/min : + 4
rack travel mm : 4.00

rack travel mm : 0.50
Tolerance mm : + 0.50
Rated speed rpm : 850

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 13.15 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 13.15
Tolerance mm : ← 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 7.80
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 230 rack travel mm : 8.45 Tolerance mm : + 0.25

Pressure hPa : 580 rack travel mm : 10.45 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : - 500

Del. quantity cm3/1000 strokes : 230.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/100Cs. : \leftarrow 7.6

STARTING FUEL DELIVERY

Rated speed rpm : 100

End of test specification sheet

H50

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 23.12.97 Test oil : ISO 4113

Combination No. : 0 402 946 031

Injection pump

Pump designation: PES6P120A320RS8050 EP type number: 0 412 926 032

Governor

Governer design. : RQ250/1000PA1342 Governer no. : 0 421 801 822

Cust. part No. : 1388694

Customer spec. information Customer : SCANIA Motor : DSI 9E01 Power KW : 170.0

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 095

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 80 Tolerance l/h : + 10.0

Test mozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.00 Tolerance mm : + 0.05 Check

uneck

tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

	
Rack travel in mm: 12.30	Rated speed rpm : 410
Tolerance mm : + 0.05	+ guide sleeve
	travel nm : 3.50
Del. quantity	+ Tolerance mm : +- 0.10
cm3/1000 strokes : 240.0	T roter drice and
CHO/ 1000 Strukes . 240.0	Rated speed rpm : 530
Tolerance	
	guide sleeve
$cm3/1000$ strokes : \leftarrow 1.0	travel mm : 4.50
	Tolerance mm : + 0.10
Check tolerance	†
$cm3/1000s.$: \leftarrow 7.0	+ Rated speed rpm : 1670
	+ guide sleeve
Spreed	† travel mm : 11.50
	+ Tolerance mm : + 0.50
Tolerance	+
cm3/1000 strokes : 8.0	
	+ GUIDE SLEEVE POSITION
Check tolerance	+
cm3/1000s. : 12.0	+
	+ control lever
	position degree : 108
	+ Rated speed rpm : 600
Rated speed rpm : 285	1 Macca speca (pil) . Goo
nated speed (pin 1 co.)	Rack travel in mm : 16.00
Rack travel in mm: 5.20	Tolerance mm : + 0.60
	Toterance and : - 0.00
The state of the s	Ť
Del. quantity	FINE LOAD BELTHERY AT FINE LOAD GTOR
cm3/1000 strokes : 30.0	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	†
cm3/1000 strokes : + 3.0	+ Rated speed rpm : 700
Check tolerance	+ Aneroid pressure
cm3/1000s. : \leftarrow 6.0	+ hPa : 1500
Spreed	+ Del. quantity
Tolerance	+ cm3/1000 strokes : 240.0
cm3/1000 strokes : 4.0	+ Tolerance
Check tolerance	+ cm3/1000 strokes : + 1.0
cm3/1000s. : 8.0	+ Check tolerance
	+ cm3/1000s. : + 7.0
	Spreed
(B) SETTING OF INJECTION PUMP	+ Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : 8.0
MILLI GOACULOK	- Check tolerance
CITAL CLEENE TRAVEL	+ cm3/1000s. : 12.0
GUIDE SLEEVE TRAVEL	I
Peter annual pure 1 1041	T
Rated speed rpm : 1061	CONTROL LEVED
guide sleeve	+ CONTROL LEVER
travel mm : 4.72	†
Tolerance mm : + 0.15	+ control lever
	position degree : 43.0
Rated speed rpm : 285	tolerance degree : +- 4.0
guide sleeve	+
travel mm : 2.17	+ control lever
Tolerance mm : + 0.20	position degree : 105.0
	tolerance degree : +- 4.0
Rated speed rpm : 1000	+
guide sleeve	+ RATED SPEED
travel mm : 4.50	+ rack travel mm : 11.30
Tolerance mm : + 0.10	Rated speed rpm : 1058
COLOR OFFICE COLOR	1 mana abasa ibii i iosa

olerance 1/min	: ← 8
heck peed 1/min	: - 10
ack travel mm	
ated speed rpm olerance 1/min	: 1245 : + 15
heck peed 1/min	: + 20
rack travel mma folerance mma lated speed rpm	: 0.50 : ← 0.50 : 1350
OW IDLE	
ontrol lever osition degree olerance degree	: 85.0 : + 4.0
control lever osition degree colerance degree	: 21.0 : + 4.0
etting point w/o	ut bumper spring
lated speed rpm	: 150
RT mm min.	: > 8.00
esting:	
ated speed rpm	: 285 : 5.20
olerance mm	· + 0.10
ack travel mm lated speed rpm folerance 1/min	: < 2.00 : 390 : + 20
ORQUE CONTROL	700
ated speed rpm ack travel mm	: 700 : 12.30
olerance mm	: + 0.05
ated speed rpm ack travel mm olerance mm	: 1000 : 12.30 : ← 0.10

Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 12.30 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.40 : ← 0.20
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel man Tolerance man	: 275 : 10.90 : ← 0.15
Pressure hPa rack travel mm Tolerance mm	: 425 : 12.10 : + 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 170
Check speed 1/min Check	: > 80
speed 1/min	: < 190
FUEL DELIVERY CHA	ARACTERISTICS

Aneroid pressure hPa Rated speed rpm	: 1500 : 1000
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 214.0 : + 4.0
Check tolerance cm3/1000s.	: +- 6.0

Aneroid pressure		
hPa	:	-
Rated speed rpm	:	500
Del. quantity		
cm3/1000 strokes	:	210.0
Tolerance		
cm3/1000 strokes	: +	- 1.0
Check tolerance		
cm3/1000s.	: +	- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 : + 0.50 Tolerance mm Del. quantity

cm3/1000 strokes : 250.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s. : **←** 25.0

LOW IDLE

Rated speed rpm : 285

Rack travel in mm : 5.20 Tolerance mm : ← 0.10 Del. quantity cm3/1000 strokes : 30.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. 6.0 : +-Spreed Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 07.01.98 : ISO 4113

Combination No. : 0 402 046 862

Injection pump

Pump designation : PES6P120A320RS3337

EP type number : 0 412 026 770

Governor

Governer design. : RQV300...1250PA1149K

Governer no. : 0 421 815 416

Cust. part No. : CCEP 5141A 66-218

Customer-spec. information

Customer : RENAULT V.I. : MIDR 06-02-26 V4 Motor

: 133.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : -- 2.0 Tolerarice °C

Overflow valve : 2 417 413 084

Inlet press. bar : 2.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 : **←** 1.5 Tolerance bar

: 1 680 750 008 Test Lines

Outside diameter : 6.0

x inside diameter: 2.0 x length wm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

4.10 Prestroke mm : **←** 0.05 Tolerance mm Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

*NW after s.o.d. : -0.18

: +- 0.50 Tolerance Check

: **←** 0.75 tolerance *NW

: 1 Barrel no.

Beginning of delivery differende

betw. rack trav.

21.00 and maximum rack

travel : 10.50 Difference * CS : 2.00

CRT ZERO POSITION

Rack travel in mm Tolerance mm	: 11.20 : + 0.05
BASIC SETTING	Ť
Rated speed rpm	: 1250
Del. quantity cm3/1000 strokes	: 150.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: + 4.0
Spreed	Ţ
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0
Rated speed rpm	: 300
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: + 0.10
Tolerance cm3/1000 strokes Check tolerance	+
cm3/1000s. Spreed	: + 5.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE TRAV	EL
Rated speed rpm guide sleeve travel mm	: 1346
Tolerance mm	: 10.55 : + 0.15
Rated speed rpm guide sleeve travel mm	: 300
CLAAGE IMM	+ 1.51 +

Tolerance mm	: + 0.20
Rated speed rpm guide sleeve	: 905
travel mm	: 6.54
Tolerance mm	: ← 0.25
Rated speed rpm guide sleeve	: 381
travel mm	: 2.38
Tolerance mm	: + 0.25
Rated speed rpm guide sleeve	: 431
travel mm	: 2.98
Tolerance mm	: +- 0.25
Rated speed rpm guide sleeve	: 530
travel mm	: 3.77
Tolerance mm	: ← 0.25
Rated speed rpm guide sleeve	: 1580
travel mm	: 13.50
Tolerance mm	: + 0.50
GUIDE SLEEVE POST	ITION

control lever
position degree : -

+

Rated speed rpm : 1380

Rack travel in mm : 10.50 Tolerance mm : + 1.30

FULL LOAD DELIVERY AT FULL LOAD STOP

9.0

1250 Rated speed rpm Aneroid pressure hPa 1000 Del. quantity cm3/1000 strokes : 150.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance

CONTROL LEVER

cm3/1000s.

	+		
control lever position degree : tolerance degree : +-		Rated speed rpm Pressure hPa	
_	+	Rated speed rpm	: 1250
RATED SPEED	t	Pressure hPa rack travel mm Tolerance mm	: -
rack travel mm :		rack travel mm	-1.90
Rated speed rpm : 1. Tolerance 1/min : +-	15	lolerance mm	: ← 0.20
Toterance Trusting : +-	I	MEASUREMENT	
rack travel mm :	-7.20		
Rated speed rpm : 14		Rated speed rpm	: 1250
Tolerance 1/min : +	5 +		
	40.70	Pressure hPa	: 160
rack travel mm : -		rack travel mm	: −1.30 : + 0.10
Tolerance mm : Rated speed rpm : 1:		Tolerance mm	: +- 0.10
nacca opeca i pia i i i	1	Pressure hPa	: 280
	1	rack travel mm	
	+	Tolerance mm	: ← 0.05
LOW IDLE	†	Start interlock	
	Ī	start intertock	
control lever	1	Rated speed rpm	: > 175
position degree :	244.0	Rated speed rpm	: < 240
tolerance degree : +-	4.0		
	. +	Check	4.77
Setting point w/out bum	per spring +	speed 1/min	: > 155
Rated speed rpm :	200 🚶	Check speed 1/min	: < 260
nated speed (pi)	1	Speed 17 MILLI	. \ 200
CRT mm min. : < -	-5.20		
	+	FUEL DELIVERY CHA	RACTERISTICS
Testing:	+		
	1		
Rated speed rom : :	300	Aneroid pressure	
Rated speed rpm : :		Aneroid pressure	: 1000
	-6.30 ∔		
rack travel mm : - Tolerance mm : +-	-6.30 0.10	hPa Rated speed rpm Del. quantity	: 850
rack travel mm : +	-6.30 ∔	hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 850
rack travel mm : - Tolerance mm : +-	-6.30 0.10	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 850 : 122.0
rack travel mm : - Tolerance mm : + Rated speed rpm :	-6.30 0.10	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 850 : 122.0
rack travel mm : - Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL	-6.30 0.10 400	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 850 : 122.0 : ← 3.0
rack travel mm : - Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL	-6.30 0.10	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 850 : 122.0 : ← 3.0
rack travel mm : Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 12 Rated speed rpm : 12	-6.30 0.10 400 	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 850 : 122.0 : ← 3.0 : ← 6.0
rack travel mm : Tolerance mm : +- Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 17 Rated speed rpm : 2 Rated speed rpm : 4	-6.30 0.10 400 -250 850 -1.35	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 850 : 122.0 : + 3.0 : + 6.0 : -1.60
rack travel mm : Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 12 Rated speed rpm : 12	-6.30 0.10 400 -250 850 -1.35	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 850 : 122.0 : + 3.0 : + 6.0 : -1.60
rack travel mm : - Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 12 Rated speed rpm : 4 rack travel mm : + Tolerance mm : +	-6.30 0.10 400 -250 850 -1.35 0.15	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 850 : 122.0 : + 3.0 : + 6.0 : -1.60
rack travel mm : Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 16 Rated speed rpm : 4 rack travel mm : + Rated speed rpm : +	-6.30 0.10 400 -250 850 -1.35 0.15	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. rack travel mm Tolerance mm	: 850 : 122.0 : + 3.0 : + 6.0 : -1.60
rack travel mm : Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 16 Rated speed rpm : 4 rack travel mm : + Rated speed rpm : +	-6.30 0.10 400 -250 850 -1.35 0.15 350 -1.60	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 850 : 122.0 : → 3.0 : → 6.0 : → 6.0 : → 0.20
rack travel mm : Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 16 Rated speed rpm : 4 rack travel mm : + Rated speed rpm : 4 Rated speed rpm : 4 rack travel mm : +	-6.30 0.10 400 -250 850 -1.35 0.15 350 -1.60	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. rack travel mm Tolerance mm Aneroid pressure hPa Rated speed rpm	: 850 : 122.0 : → 3.0 : → 6.0 : → 0.20
rack travel mm : + Tolerance mm : + Rated speed rpm : 17 Rated speed rpm : 17 Rated speed rpm : 17 Rated speed rpm : + Tolerance mm : + Tolerance mm : + Tolerance mm : +	-6.30 0.10 400 -250 850 -1.35 0.15 350 -1.60	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. rack travel mm Tolerance mm Aneroid pressure hPa Rated speed rpm Del. quantity	: 850 : 122.0 : ← 3.0 : ← 6.0 : ← 6.0 : ← 0.20
rack travel mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 1 Rated speed rpm : 4 rack travel mm : + Rated speed rpm : 4 rack travel mm : + Rated speed rpm : 5 rack travel mm : + ANEROID/ALTITUDE	-6.30 0.10 400 -250 850 -1.35 0.15 350 -1.60	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. rack travel mm Tolerance mm Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 850 : 122.0 : ← 3.0 : ← 6.0 : ← 6.0 : ← 0.20
rack travel mm : + Tolerance mm : + Rated speed rpm : 17 Rated speed rpm : 17 Rated speed rpm : 17 Rated speed rpm : + Tolerance mm : + Tolerance mm : + Tolerance mm : +	-6.30 0.10 400 -250 850 -1.35 0.15 350 -1.60	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. rack travel mm Tolerance mm Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 850 : 122.0 : → 3.0 : → 6.0 : → 6.0 : → 0.20 : 1250 : 113.0
rack travel mm : + Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 1 Rated speed rpm : 4 rack travel mm : + Rated speed rpm : 4 Rated speed rpm : 5 Tolerance mm : + ANEROID/ALTITUDE	-6.30 0.10 400 -250 850 -1.35 0.15 350 -1.60	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. rack travel mm Tolerance mm Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 850 : 122.0 : → 3.0 : → 6.0 : → 6.0 : → 0.20 : 1250 : 113.0
rack travel mm : + Tolerance mm : + Rated speed rpm : 4 TORQUE CONTROL Rated speed rpm : 1 Rated speed rpm : 4 rack travel mm : + Rated speed rpm : 4 Rated speed rpm : 5 Tolerance mm : + ANEROID/ALTITUDE	-6.30 0.10 400 -250 850 -1.35 0.15 350 -1.60	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. rack travel mm Tolerance mm Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 850 : 122.0 : → 3.0 : → 6.0 : → 6.0 : → 1.60 : → 0.20 : 1250 : 113.0

STARTING FUEL DELIVERY

100 Rated speed rpm : Del. quantity cm3/1000 strokes : 108.0 Tolerance

cm3/1000 strokes : \leftarrow 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

300 Rated speed rpm : Rack travel in mm : -6.30Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 34.0 Tolerance

cm3/1000 strokes : +-2.0 Check tolerance 5.0

cm3/1000s. Spreed

Tolerance cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0 •

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 06.01.98 : ISO 4113

Combination No. : 0 402 646 701

Injection pump Pump designation : EP type number

Governor

Governer design. : RQV350...1050PA1367

Governer no.

: 0 421 814 205

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA : 213.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 120 Tolerance L/h : **←** 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar : **←** 1.5 Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 : +- 0.05 Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 20.50 Tolerance mm : \leftarrow 0.50

: 6-3-5-2-4-Firing order

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance 'NW : + 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance 'NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.80 Tolerance mm : +- 0.05

	+ guide sleeve
Del. quantity	travel mm : 3.57
cm3/1000 strokes : 203.0	+ Tolerance mm : +- 0.25
Tolerance	+ Rated speed rpm : 1204
$c_93/1000$ strokes : \leftarrow 1.0	+ guide sleeve
	+ travel mm : 10.00
Check tolerance	+ Tolerance mm : + 0.25
$cm3/1000s.$: \leftarrow 4.0	}
	Rated speed rpm : 1300
Spreed	+ guide sleeve
	+ travel mm : 11.50
Tolerance	+ Tolerance mm : + 0.50
cm3/1000 strokes : 5.0	}
Check tolerance	+ GUIDE SLEEVE POSITION
cm3/1000s. : 9.0	· }
	<u> </u>
	+ control lever
	<pre>position degree : - 1</pre>
Rated speed rpm : 350	+ Rated speed rpm : 1178
•	+
Rack travel in mm : 4.70	+ Rack travel in mm : 10.80
Tolerance mm : + 0.10	Tolerance mm : + 1.30
Del. quantity	-
cm3/1000 strokes : 19.0	
Tolerance	+ FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 3.0	+
Check tolerance	+ Rated speed rpm : 1050
$cm3/1000s.$: \leftarrow 6.0	Aneroid pressure
Spreed	hPa : 1000
Tolerance	+ Del. quantity
cm3/1000 strokes : 6.0	+ cm3/1000 strokes : 203.0
Check tolerance	+ Tolerance
cm3/1000s. : 10.0	+ cm3/1000 strokes : + 1.0
	+ Check tolerance
	+ cm3/1000s. : + 4.0
(B) SETTING OF INJECTION PUMP	+ Spreed
WITH GOVERNOR	+ Tolerance
	+ cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAVEL	+ cm3/1000s. : 9.0
	+
Rated speed rpm : 1106	+
guide sleeve	
travel mm : 8.02	+ CONTROL LEVER
Tolerance mm : + 0.15	+
	t control lever
Rated speed rpm : 350	† position degree : 116.0
guide sleeve	tolerance degree : +- 4.0
travel mm : 1.48	†
Tolerance mma : + 0.20	+ RATED SPEED
	+ rack travel mm : 10.80
Rated speed rpm : 900	+ Rated speed ram : 1095
guide steeve	+ Tolerance 1/min : + 5
travel mm : 5.69	+
Tolerance mm : + 0.25	+ rack travel mm : 4.00
	Rated speed rpm : 1155
Rated speed rpm : 570	Tolerance 1/min : + 15
	+

rack travel mm Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 1300
LOW IDLE	
control lever position degree tolerance degree	
Setting point w/o	out bumper spring
Rated speed rpm	: 250
CRT mm min.	: > 6.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 4.70 : + 0.10
Rated speed rpm	: 400
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm	: 11.80 : + 0.05 : 550 : 11.80
Tolerance mm	: ← 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	**************************************
SETTING	
Rated speed rpm Pressure hPa	: 500
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 200 : 0.45 : ← 0.05
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa	: 400

Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 270
Check	
speed 1/min Check	: > 80
speed 1/min	: < 290
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	: 1000
Rated speed rpm	: 550
Del. quantity cm3/1000 strokes	: 201.0
Tolerance	: 201.0
cm3/1000 strokes	: ← 2.0
Check tolerance cm3/1000s.	: +- 5.0
Spreed	
Tolerance cm3/1000 strokes	: 8.0
Check tolerance	: 0.0
cm3/1000s.	: 12.0
Aneroid pressure	
hPa	:
Rated speed rpm	: 500
Del. quantity cm3/1000 strokes	: 127.0
Tolerance	. 127.0
cm3/1000 strokes	: +- 1.0
Check tolerance	
cm3/1000s.	: +- 4.0
Spr ee d Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	
cm3/1000s.	: 12.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity cm3/1000 strokes	: 180.0
Tolerance	
cm3/1000 strokes	: + 10.0
Check tolerance cm3/1000s.	: +- 14.0
	.

LOW IDLE

Rated speed rpm	:		350	
1000.0100	•	+-	4.70 0.10	
Del. quantity cm3/1000 strokes Tolerance	:		19.0	
cm3/1000 strokes Check tolerance	:	+-	3.0	
cm3/1000s. Spreed	:	+	6.0	
Tolerance cm3/1000 strokes	:		6.0	
Check tolerance cm3/1000s.	:		10.0	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 06.01.98 Test oil : ISO 4113

Combination No. : 0 402 646 702

Injection pump Pump designation : EP type number :

Governor

Governer design. : RQV350...1050PA1368

Governer no. : 0 421 814 206

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 120 Tolerance l/h : ← 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 11.80 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 190.0

Tolerance	+ guide sleeve
cm3/1000 strokes : +- 1.0	+ travel mm : 10.00
	+ Tolerance mm : + 0.25
Check tolerance	1
cm3/1000s. : + 4.0	Rated speed rpm : 1300
CIEST 10000: 1.1 4.0	guide sleeve
Canad	
Spreed	+ travel mm : 11.50
	+ Tolerance mm : + 0.50
Tolerance	†
cm3/1000 strokes : 5.0	
	+ GUIDE SLEEVE POSITION
Check tolerance	+
cm3/1000s. : 9.0	1
	+ control lever
	position degree : - 1
	+ Rated speed rpm : 1178
Rated speed rpm : 350	Traced speed ipin . 1110
hated speed this . 330	Rack travel in mm: 10.80
Dools Annual day on a 170	
Rack travel in mm: 4.70	+ Tolerance mm : + 1.30
Tolerance mm : +- 0.10	†
Del. quantity	
cm3/1000 strokes : 19.0	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	+
cm3/1000 strokes : +- 3.0	+ Rated speed rpm : 1050
Check tolerance	+ Aneroid pressure
cm3/1000s. : + 6.0	+ hPa : 800
Spreed	+ Del. quantity
Tolerance	+ cm3/1000 strokes : 190.0
cm3/1000 strokes : 6.0	+ Tolerance
Check tolerance	- cm3/1000 strokes : + 1.0
cm3/1000s. : 10.0	+ Check tolerance
	+ cm3/1000s. : +- 4.0
	+ Spreed
(B) SETTING OF INJECTION PUMP	+ Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : 5.0
	+ Check tolerance
	+ cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	+
	1
Rated speed rpm : 1106	
guide steeve	+ CONTROL LEVER
travel mm : 8.02	T CONTINUE ELEVEN
Tolerance mm : + 0.15	+ control lever
TO CET OFFICE HAR	444
Rated speed rpm : 350	
	tolerance degree : + 4.0
guide steeve	7
travel nam : 1.48	+ RATED SPEED
Tolerance mm : + 0.20	+ rack travel mm : 10.80
	+ Rated speed rpm : 1095
Rated speed rpm : 900	+ Tolerance 1/min : +- 5
guide sleeve	+
travel mm : 5.69	+ rack travel mm : 4.00
Tolerance mm : + 0.25	+ Rated speed rpm : 1155
र च च च च च च च च च च च च च च च च च च च	+ Tolerance 1/min : +- 15
Rated speed rpm : 570	
	rack travel mm : 0.75
guide sleeve	
travel mm : 3.57	+ Tolerance mm : + 0.75
Tolerance mm : +- 0.25	+ Rated speed rpm : 1300
	t
Rated speed rpm : 1204	+

LOW IDLE

control lever

position degree : 65.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 250

CRT mm min. :> 6.50

Testing:

Rated speed rpm : 350 rack travel mm : 4.70 Tolerance mm : +- 0.10

Rated speed rpm : 400

TORQUE CONTROL

Rated speed rpm : 1050 rack travel mm : 11.80 Tolerance mm : ← 0.05

Rated speed rpm : 550 rack travel mm : 11.80 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : -

MEASUREMENT

Pressure hPa : 200 rack travel mm : 0.20 Tolerance mm : + 0.05

Pressure hPa : 350 rack travel mm : 1.00 Tolerance mm : + 0.10

Start interlock

Rated speed rpm :> 100 Rated speed rpm :< 270 Check
speed 1/min : > 80
Check
speed 1/min : < 290

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 800 Rated speed rpm 550 Del. quantity cm3/1000 strokes : 184.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +-5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 :

Aneroid pressure hPa

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 131.0
Tolerance
cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 4.0 Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance cm3/1000s.

s. : 12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 230.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm: 4.70

Tolerance mm Del. quantity	: +-	0.10
cm3/1000 strokes	:	19.0
Tolerance cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s.	: +-	6.0
Spreed Tolerance	•	0.0
cm3/1000 strokes	:	6.0
Check tolerance cm3/1000s.	:	10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 06.01.98 Test oil : ISO 4113

Combination No. : 0 402 646 703

Injection pump
Pump designation :
EP type number :

Governor

Governer design. : RQV350...1050PA1369

Governer no. : 0 421 814 207

Cust. part No.

Customer—spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 213.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 120 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : ← 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.80 Tolerance mm: + 0.05

+	guide sleeve
Del. quantity	travel mm : 3.57
cm3/1000 strokes : 203.0	Tolerance mm : + 0.25
Tolerance	Rated speed rpm : 1204
cm3/1000 strokes : + 1.0	guide sleeve
	travel mm : 10.00
Check tolerance +	Tolerance mm : + 0.25
cm3/1000s. : $+$ 4.0	
+	Rated speed rpm : 1300
Spreed	guide sleeve
Tolerance	travel mm : 11.50 Tolerance mm : + 0.50
cm3/1000 strokes : 5.0	Tolerance mm : \leftarrow 0.50
T I I I I I I I I I I I I I I I I I I I	
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. 9.0	0020E 000EE 1 00212011
	control lever
+	position degree : - 1
Rated speed rpm : 350	Rated speed rpm : 1178
t	
Rack travel in mm: 4.70	Rack travel in mm : 10.80
Tolerance mm : + 0.10	Tolerance mm : \leftarrow 1.30
Del. quantity + cm3/1000 strokes : 19.0 +	
Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 3.0	TOLL LOAD DELIVERY AT TOLL LOAD STOP
Check tolerance	Rated speed rpm : 1050
cm3/1000s. : + 6.0	Aneroid pressure
Spreed	hPa : 1000
Tolerance	Del. quantity
cm3/1000 strokes : 6.0 +	cm3/1 000 strokes : 203.0
Check tolerance +	Tolerance
cm3/1000s. : 10.0 +	cm3/1000 strokes : + 1.0
†	Check tolerance
(B) SETTING OF INJECTION PUMP	cm3/1000s. : +- 4.0
WITH GOVERNOR	Spreed Tolerance
WITH GOVERNOR	cm3/1000 strokes : 5.0
	Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000s. : 9.0
+	
Rated speed rpm : 1106	
guide sleeve	
travel mm : 8.02	CONTROL LEVER
Tolerance mm : + 0.15	annana I I a san
Rated speed rpm : 350	control lever position degree : 116.0
Rated speed rpm : 350 + guide sleeve +	position degree : 116.0 tolerance degree : +- 4.0
travel mm : 1.48	toterance degree . T- 4.0
Tolerance mm : + 0.20	RATED SPEED
+	rack travel mm : 10.80
Rated speed rpm : 900	Rated speed rpm : 1095
guide sleeve +	Tolerance 1/min : + 5
travel mm : 5.69	
Tolerance mm : + 0.25	rack travel mm : 4.00
†	Rated speed rpm : 1155
Rated speed rpm : 570 +	Tolerance 1/min : +- 15

rack travel mm Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 1300
LOW IDLE	
control lever position degree tolerance degree	: 65.0 : + 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 250
CRT ma min.	: > 6.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 4.70 : ← 0.10
Rated speed rpm	: 400
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1050 : 11.80 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 500 : ~
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 200 : 0.45 : + 0.05
MEASUREMENT	
Rated speed rpm	: 500

Start interlock	
Rated speed rpm	: > 100 : < 270
Rated speed rpm	: < 270
Check	. 00
speed 1/min Check	: > 80
speed 1/min	: < 290
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	: 1000
Rated speed rpm Del. quantity	: 550
cm3/1000 strokes	: 201.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s.	: ← 5.0
Spreed Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	A 73 / 73
cm3/1000s.	: 12.0
Aneroid pressure	
hPa	
Rated speed rpm Del. quantity	: 500
cm3/1000 strokes	: 127.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance	. +- 1.0
cm3/1000s.	: +- 4.0
Spreed Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0
UIID/ 10003.	: (2.5)
07107710 51:51	TURN
STARTING FUEL DEL	TAFKA
Rated speed rpm	: 100
Del. quantity cm3/1000 strokes	: 180.0
Tolerance	
cm3/1000 strokes	: + 10.0
Check tolerance cm3/1000s.	: +- 14.0

Pressure hPa : 400

LOW IDLE

Rated speed rpm	:		350
		+	4.70 0.10
Del. quantity cm3/1000 strokes Tolerance	:		19.0
Check tolerance	•	+-	3.0
cm3/1000s. Spreed Tolerance	:	+-	6.0
cm3/1000 strokes Check tolerance	:		6.0
cm3/1000s.	:		10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 07,01,98 : ISO 4113

Combination No. : 0 402 716 803

Injection pump

Pump designation : PES6P120A700LS7394

EP type number : 0 412 726 947

Governor

Governer design. : Governer no.

Cust. part No. : 51.11103-7413

Customer-spec. information

Customer : MAN

Motor

: D2866 LE203

Power KW

: 327.0

TEST BENCH REQUIREMENTS

Inlet line

: 4.1

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar :

2.0

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

: 208.5

Tolerance bar

: +- 1.5

Test Lines : 1 680 750 089

Outside diameter :

8.0

x inside diameter: 3.0 x length man : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 4,40 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 13.00 : +- 0.50 Tolerance mm

: 6-2-- 4-- 1- 5--Firing order

: 0-60-120-180-240 Phasing

Start of delivery mark

: + 0.10 Tolerance

Check

tolerance *NW : +- 0.75

Barrel no.

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 13.10

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 370.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.	: +- 4.0
Spreed	
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0
Rated speed rpm Del. quantity	: 300
cm3/1000 strokes Tolerance	: 95.0
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s.	: ← 6.0
Spreed Tolerance	
cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP
FULL LOAD DELIVER	RY AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	: 700
hPa	: -
Del. quantity cm3/1000 strokes	: 370.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s. Spreed	: ← 4.0
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0

STARTING FUEL DEL	IVER	Υ
Rated speed rpm rack travel mm Tolerance mm	: : : +	100 13.10 - 0.05
Del. quantity cm3/1000 strokes Tolerance	:	345.0
cm3/1000 strokes Check tolerance	: +	- 20.0
cm3/1000s.	: +	- 24.0
LOW IDLE		
Rated speed rom	•	300
Del. quantity cm3/1000 strokes	:	300 95.0
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	•	
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	•	95.0
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	•	95.0 - 3.0

End of test specification sheet

TORQUE CONTROL
Rated speed rpm :
rack travel mm :

Tolerance mm

: 700 : 13.10 : + 0.05

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.01.98 Edition Test oil : ISO 4113

Combination No. : 0 402 746 603

Injection pump

Pump designation : PES6P120A320RS7359 EP type number : 0 412 726 925

60vernor

Governer design. : RQ300/1050PA999-7 Governer no. : 0 421 801 799

Cust. part No. : CCEP 5153 66-224

Customer-spec. information

Customer : RENAULT V.I. : MIHRO62045 A41 Motor

Power KW : 188.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : + 2.0 Tolerance *C

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerence bar : + 1.0

Prestroke mm : 4.70 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 20.25 Tolerance mm : + 0.75

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

*NW after s.o.d. : -0.50 Tolerance : + 0.50

Tolerance

Check

tolerance *NW : +- 0.75

Barrel no. : 1

CRT ZERO POSITION

Rack travel in mm : 12.40 Tolerance mm : +- 0.05

BASIC SETTING

Rated speed rpm	: 600	1
kated speed rpm	; 000	Rated speed rpm : 594
Tolerance mm	: +- 0.05	+ guide sleeve
		+ travel mm : 5.11
Del. quantity		Tolerance mm : + 0.10
cm3/1000 strokes	: 195.0	+
		+ Rated speed rpm : 720
Tolerance		† guide sleeve
cm3/1000 strokes	: + 1.0	travel mm : 6.00
		† Tolerance mm : +- 0.10
Check tolerance		†
cm3/1000s.	: +- 4.0	+ Rated speed rpm : 1380
Conned		guide sleeve
Spreed		travel mm : 11.50
Tolerance		Tolerance mm : + 0.50
cm3/1000 strokes	: 5.0	T
CIRCY FUOU SCHOKES	: 5.0	GUIDE SLEEVE POSITION
Check tolerance		I going speeds hostitory
cm3/1000s.	: 9.0	1
-m-/ 100001	. ,	T control lever
		position degree : 109
		+ Rated speed rpm : 800
Rated speed rpm	: 275	+
		Rack travel in mm: 20,00
Rack travel in m	m: -6.60	+ Tolerance mm : + 0.80
Tolerance mm	: ← 0.10	+
Del. quantity		
cm3/1000 strokes	: 38.0	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance		+
cm3/1000 strokes	: +- 2.0	+ Rated speed rpm : 600
Check tolerance		+ Aneroid pressure
cm3/1000s.	: 5.0	† hPa : 1000
Spreed		+ Del. quantity
Tolerance	0.0	+ cm3/1000 strokes : 195.0
cm3/1000 strokes	: 8.0	† Tolerance
Check tolerance	. 12.0	+ cm3/1000 strokes : + 1.0
cm3/1000s.	: 12.0	+ Check tolerance + cm3/1000s. : +- 4.0
		+ cm3/1000s. : +- 4.0 + Spreed
(B) SETTING OF I	NJECTION PLIMP	+ Tolerance
WITH GOVERNOR	HOPOTON LOUN.	+ cm3/1000 strokes : 5.0
HAIII GOTEINION		Check tolerance
		+ cm3/1000s. : 9.0
GUIDE SLEEVE TRA	VEL	+
	44.5	†
Rated speed rpm	: 1145	CONTROL A 51 FD
guide sleeve		+ CONTROL LEVER
travel mm Tolerance mm	: 6.55	T control lover
ioterance mm	; - 0. (5	t control lever
Dotad speed ass	: 275	position degree : 276.0
Rated speed rpm	: 275	tolerance degree : + 4.0
guide sleeve travel mm	: 1.75	RATED SPEED
Tolerance mm		+ rack travel mm : -1.00
こしてこの いて 特権権	0.20	+ Rated speed rpm : 1120
Rated speed rpm	: 1050	+ Tolerance 1/min : +- 15
guide sleeve		10001 01100 1/10111 1 1 1 1 1 1
travel mm	: 6.00	rack travel mm : -8.40
Tolerance mm		+ Rated speed rpm : 1250
		1 eben i bin i i i i i i i i i i i i i i i i

Tolerance $1/\min$: + 5 rack travel mm : -11.90 Tolerance mm : +- 0.50 Rated speed rpm : 1375 LOW IDLE control lever position degree : 254.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rom : 175 CRT mm min. : < -4.70 Testing: Rated speed rpm : 275 rack travel mm : -0.00 : + 0.10 rack travel mm : -10.40
Rated speed rpm : 465
Tolerance 1/min : + 20 TORQUE CONTROL Rated speed rpm : 600 : +- 0.05 Tolerance mm Rated speed rpm : 1050 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 1000 Pressure hPa : Rated speed rpm : 500 Pressure hPa rack travel mm -1.75 : + 0.20Tolerance mm MEASUREMENT Rated speed rpm : 500 Pressure hPa : 220

rack travel mm : -0.85 Tolerance mm : + 0.15 Pressure hPa : 160 rack travel mm : -1.25 Tolerance mm : + 0.05 Start interlock Rated speed rpm : > 100 Rated speed rpm : < 195 Check speed 1/min : > 80 Check speed 1/min : < 215 FUEL DELIVERY CHARACTERISTICS Aneroid pressure : 1000 Rated speed rpm : 1050 Del. quantity cm3/1000 strokes : 196.0 Tolerance cm3/1000 strokes : +- 3.0Check tolerance cm3/1000s. : +- 6.0 Aneroid pressure hPa Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 153.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 150.0 Tolerance cm3/1000 strokes : +- 15.0 Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

J17

Rated speed rpm	:		275
Rack travel in mm Tolerance mm	:	+-	-6.60 0.10
Del. quantity cm3/1000 strokes Tolerance	:		38.0
cm3/1000 strokes Check tolerance	:	+	2.0
cm3/1000s. Spreed	:	+-	5.0
Tolerance cm3/1000 strokes Check tolerance	:		8.0
cm3/1000s.	:		12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 07.01.98 : ISO 4113

Combination No. : 0 402 746 638

Injection pump

Pump designation : PES6P120A320RS7449

EP type number : 0 412 726 974

Governor

Governer design. : RQ275/1050PA1373

Governer no. : 0 421 801 831

Cust. part No. : CCEP 5171-66/254

Customer-spec. information

Customer : RENAULT V.I. : MI7R062045 C41 Motor

Power KW : 152.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : **←** 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

Tolerance l/h : + 10 : + 10.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.Û Tolerance bar : + 1.0

Prestroke mm : 4.70 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.25 Tolerance mm : + 0.75

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.50 Tolerance

Check

tolerance *NW : + 0.75

Start of delivery mark

*NW after s.o.d. : -0.95

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

CRT ZERO POSITION

Rack travel in mm : 11.70 Tolerance mm : + 0.05	Rated speed rpm : 1050 guide sleeve travel mm : 6.70 Tolerance mm : + 0.10
BASIC SETTING +	100014,100144
Rated speed rpm : 1050	Rated speed rpm : 668 guide sleeve travel mm : 6.18
Del. quantity cm3/1000 strokes : 176.0	Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 377 guide sleeve travel mm : 5.00
Check tolerance : + 4.0	Tolerance mm : + 0.10 Rated speed rpm : 460
Spreed	guide steeve travel mm : 6.00 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 1310 guide sleeve
Check tolerance cm3/1000s. : 9.0	travel mm : 11.50 Tolerance mm : +- 0.50
275	Rated speed rpm : 874 guide sleeve
Rated speed rpm : 275	travel mm : 6.52 Tolerance mm : + 0.10
Rack travel in mm: -6.10 Tolerance mm: + 0.10	
Del. quantity cm3/1000 strokes : 28.0 Tolerance	GUIDE SLEEVE POSITION
cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0	control lever position degree : 109 Rated speed rpm : 1050
Spreed Tolerance	Rack travel in mm : 20.00
cm3/1000 strokes : 8.0 theck tolerance	Tolerance mm : +- 0.80
cm3/1000s. : 12.0	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1050 Aneroid pressure hPa : 1000
GUIDE SLEEVE TRAVEL	Del. quantity cm3/1000 strokes : 176.0
Rated speed rpm : 1125 + guide sleeve +	Tolerance cm3/1000 strokes : + 1.0 Check tolerance
travel mm : 7.06 Tolerance mm : + 0.15	cm3/1000S. : +- 4.0 Spreed
Rated speed rpm : 275 guide sleeve	Tolerance cm3/1000 strokes : 5.0 Check tolerance
travel mm : 2.38 Tolerance mm : + 0.20	cm3/1000s. : 9.0

CONTROL LEVER

control lever

position degree : 275.0 tolerance degree : + 4.0

RATED SPEED

rack travel mm : -1.00 Rated speed rpm : 1115 Tolerance 1/min : +- 5

rack travel mm : -7.70
Rated speed rpm : 1205
Tolerance 1/min : +- 15

rack travel mm : -11.20 Tolerance mm : +- 0.50 Rated speed rpm : 1350

LOW IDLE

control lever

position degree : 255.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. : > -4.30

Testing:

Rated speed rpm : 275
rack travel mm : -6.10
Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 367
Tolerance 1/min : + 20

TORQUE CONTROL

Rated speed rpm : 1050

Rated speed rpm : 600 rack travel mm : 0.80 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1000
rack travel mm : 1.00
Tolerance mm : +- 0.10

Rated speed rpm : 500
Pressure hPa : rack travel mm : -1.00
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 280 rack travel mm : 0.40 Tolerance mm : + 0.15

Pressure hPa : 160 rack travel mm : -0.40 Tolerance mm : + 0.05

Start interlock

Rated speed rpm : > 100
Rated speed rpm : < 195

Check

speed 1/min : > 80 Check speed 1/min : < 215

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPe : 1000 Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : 193.0

Tolerance

cm3/1000 strokes : + 3.0 Check tolerance

cm3/1000s. : +- 6.0

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity cm3/1000 strokes : 149.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

: +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity cm3/1000 strokes : 155.0

Tolerance

cm3/1000 strokes $\therefore + 15.0$

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 275

Rack travel in mm: -6.10 Tolerance mm : **←** 0.10 Del. quantity cm3/1000 strokes : 28.0 Tolerance cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s.

5.0 Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.01.98 Edition Test oil : ISO 4113

Combination No. : 0 402 846 081

Injection pump

Pump designation : PE6P12OA32ORS8054

EP type number : 0 412 826 039

Governor

Governer design. : RQV300...950PA1355K

Governer no. : 0 421 815 962

Cust. part No. : 11127026

: -P04 v.12.97

Customer-spec. information Customer : VCE : TD122KLE Motor Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 150 Tolerance l/h : + 20.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.50 Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm : 11.00 : +- 0.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

: **←** 0.75 tolerance *NW

Start of delivery mark

: +- 0.50 Tolerance Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 950

	+
Rack travel in mm : 11.70	+ Rated speed rpm : 500
Tolerance com : +- 0.05	+ guide sleeve
No.	travel mm : 4.00
Del. quantity cm3/1000 strokes : 260.0	Tolerance mm : + 0.25
CHD/1000 SCIORES . 200.0	Rated speed rpm : 1280
Tolerance	guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 13.50
	Tolerance mm : + 0.50
Check tolerance	+
cm3/1000s. : +- 4.0	
	+ GUIDE SLEEVE POSITION
Spreed	†
Tolerance	control lever
cm3/1000 strokes : 8.0	position degree : -1
51m2 7555 551 51(55 °	Rated speed rpm : 1125
Check tolerance	+
cm3/1000s. : 11.0	+ Rack travel in mm : 11.70
	+ Tolerance mm : + 2.00
	+
Rated speed rpm : 300	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 300	T FULL LOAD DELIVERY AT FULL COAD STOP
Rack travel in mm: 5.50	Rated speed rpm : 950
Tolerance mm : + 0.10	Aneroid pressure
Del. quantity	+ hPa : 1500
cm3/1000 strokes : 80.0	+ Del. quantity
Tolerance	- cm3/1000 strokes : 260.0
cm3/1000 strokes : + 3.0	Tolerance
Check tolerance cm3/1000s. : +- 6.0	+ cm3/1000 strokes : + 1.0
cm3/1000s. : +- 6.0 Spreed	+ Check tolerance + cm3/1000s. : + 4.0
Tolerance	Spreed : 4.0
cm3/1000 strokes : 5.0	+ Tolerance
Check tolerance	- cm3/1000 strokes : 8.0
cm3/1 00 0s. : 8.0	+ Check tolerance
	+ cm3/1000s. : 11.0
(D) CETTING OF THIS COURT	†
(B) SETTING OF INJECTION PUMP WITH SOVERNOR	İ
MTILL GOAFINION	CONTROL LEVER
	+
GUIDE SLEEVE TRAVEL	+ control lever
	position degree : 64.0
Rated speed rom : 1037	tolerance degree : +- 4.0
guide sleeve travel mm : 9.86	control lever
travel mm : 9.86 Tolerance mm : +- 0.15	+ position degree : 117.0
TO COLOUTE COMMITTED IN THE COLOUTE CO	tolerance degree : + 4.0
Rated speed rpm : 300	+
guide sleeve	RATED SPEED
travel mm : 1.61	rack travel mm : 10.70
Tolerance mma : + 0.20	Rated speed rpm : 985
	+ Tolerance 1/min : + 5
Rated speed rpm : 773	t made through my
guide sleeve travel mm : 6.81	+ rack travel mm : 4.00 + Rated speed rpm : 1080
Tolerance mm : +- 0.25	+ Tolerance 1/min : + 15
FOLE OF ILE INTO . TO U.C.	T TOTAL THE TANKE TO THE TOTAL

rack travel mma Tolerance mma Rated speed rpma	. 0.50
LOW IDLE	
control lever position degree tolerance degree	: 75.0 : + 4.0
control lever position degree tolerance degree	: 20.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 7.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm	: 400
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 950 : 11.70 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.40 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 850 : 12.10 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 11.10

ANEROID/ALTI	TUDE
COMPENSATOR	TEST

SETTING

Rated speed rpm : 800 Pressure hPa : 1500

rack travel mma	: 12.40
Tolerance mma	: + 0.10
Rated speed rpm	: 800
Pressure hPa	: -
rack travel mm	: 8.90
Tolerance mm	: + 0.20
MEASUREMENT	
Rated speed rpm	: 800
Pressure hPa	: 810
rack travel mma	: 3.00
Tolerance mma	: + 0.20
Pressure hPa	: 240
rack travel mm	: 0.25

FUEL DELIVERY CHARACTERISTICS

Tolerance mm : + 0.05

Aneroid pressure hPa Rated speed rpm Del. quantity	•	1500 800
cm3/1000 strokes	:	296.0
Tolerance cm3/1000 strokes Check tolerance	: -	⊢ 4.0
cm3/1000s.	: +	⊢ 8.0
rack travel man Tolerance man	: +	12.10 - 0.10

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	500
Del. quantity cm3/1000 strokes	:	220.0
Tolerance		
cm3/1000 strokes	: +	- 1.0
Check tolerance cm3/1000S.	: +	- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 8.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 180.0

Toleranse		
cm3/1000 strokes	: +-	15.0
Check tolerance		
cm3/1000s.	: +-	19.0

LOW IDLE

Rated speed rpm	:		300
Rack travel in mm	:		5.50
Tolerance mm	:	+-	0.10
Del. quantity			
cm3/1000 strokes	:		80.0
Tolerance			
cm3/1000 strokes	•	+	3.0
Check tolerance			
cm3/1000s.	:	+-	6.0
Spreed			
Tolerance			
011107 1000 001 01100	:		5.0
Check tolerance			
cm3/1000s.	•		8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 06,01,98 : ISO 4113

Combination No. : 0 402 036 762

Injection pump

Pump designation : PES6P110A120RS3353

EP type number : 0 412 016 752

Governor

Governer design. : RQV450...1100PA1233

: -1K

Governer no.

: 0 421 815 479

Cust. part No. : 3926776

Customer-spec. information Customer : CDC

Motor : 6CTA Power KW : 194.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 Tolerance bar : **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : \leftarrow 0.75

Start of delivery blocking

*NW after s.o.d. : 8.00

: +- 0.50 Tolerance

Check

tolerance *NW : **←** 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 13.00 Difference * CS : 1.20

	+ Tolerance mm : + 0.25
BASIC SETTING	Rated speed rpm : 890 guide sleeve
Rated speed rpm : 1000	+ travel mn : 4.75
	Tolerance mm : +- 0.25
Rack travel in mm: 13.15	Rated speed rpm : 1570
Tolerance mm : ← 0.05	guide sleeve travel mm : 13.50
Del. quantity cm3/1000 strokes : 206.5	Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : + 1.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	Rated speed rpm : 1000 Aneroid pressure
cm3/1090s. : + 4.0	hPa : 1200
Spreed	+ cm3/1000 strokes : 206.5
Tolerance	+ Tolerance + cm3/1000 strokes : +- 1.0
cm3/1000 strokes : 8.0	+ Check tolerance
	- + cm3/1000s. : + 4.0
Check tolerance	Spreed
cm3/1000s. : 12.0	+ Tolerance + cm3/1000 strokes : 8.0
	Check tolerance
	- cm3/1000s. : 12.0
Rated speed rpm : 500	‡
Rack travel in mm: 6.00	+
Tolerance mm : + 0.20	CONTROL LEVER
Del. quantity cm3/1000 strokes : 22.5	t control lever
Tolerance	position degree : 117.0
cm3/1000 strokes : + 3.0	tolerance degree : + 6.0
Check tolerance	+
cm3/1000s. : + 5.0	+ RATED SPEED + rack travel num : 11.45
Spreed Tolerance	+ rack travel n/m : 11.45 + Rated speed rpm : 1170
cm3/1000 strokes : 4.0	+ Tolerance 1/min : +- 15
Check tolerance	+
cm3/1000s. : 8.0	rack travel mm : 7.95
	+ Rated speed rpm : 1230 + Tolerance 1/min : +- 5
(B) SETTING OF INJECTION PUMP	Total and Franklin
WITH GOVERNOR	rack travel mm : 0.50
	+ Tolerance mm : + 0.50
GUIDE SLEEVE TRAVEL	- Rated speed rpm : 1350
Rated speed rpm : 1214	†
Rated speed rpm : 1214 guide steeve	I
travel mm · 8.00	+ LOW IDLE
Tolerance mm : + 0.15	+
	t control loven
Rated speed rpm : 500 guide sleeve	+ control lever + position degree : 79.0
travel mm : 1.82	tolerance degree : +- 6.0

Control lever dif	ference
Grad tolerance degree	: 38.0 : + 6.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 400
CRT mm min.	: > 7.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 500 : 6.00 : + 0.20
Rated speed rpm	: 500
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1000 : 13.15 : + 0.05
Rated speed rpm rack travel mam Tolerance mam	: 750 : 12.55 : ← 0.20
Rated speed rom rack travel mm Tolerance mm	: 1100 : 12.60 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 1000 : 1200
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1000 : - : 10.15 : + 0.20
MEASUREMENT	
Rated speed rpm	: 1000
Pressure hPa rack travel mm Tolerance mm	: 720 : 12.20 : + 0.30
Pressure hPa rack travel mm Tolerance mm	: 580 : 11.20 : ← 0.20

Start interlock		
Rated speed rom	. > 1	00
Rated speed rpm Rated speed rpm	: < 3	80
Check		90
speed 1/min Check	; >	80
speed 1/min	: < 3	90
•		
FUEL DELIVERY CHA	PACTERIST	705
TOCK PLETYCKY CHA	IMOTENTO	100
Aneroid pressure		
hPa	: 1200	1
Rated speed rpm		
Del. quantity		
cm3/1000 strokes	: 197	.5
Tolerance	: 3	
cm3/1000 strokes Check tolerance	: 1- 3	.0
cm3/1000s.	: +- 6	.0
Spreed		
Tolerance		
	; 8	.0
Check tolerance cm3/1000s.	. 12	.0
CMD/ 10003.	: 12	. · U
<u></u>	· · · · · · · · · · · · · · · · · · ·	
Aneroid pressure hPa	: 1200	1
Rated speed rpm	: 1100	
rack travel mm	: 12.	
Tolerance mm	: +- 0.	10
Del. quantity	405	. ~
cm3/1000 strokes Tolerance	: 190	1.5
cm3/1000 strokes	: +- 2	.0
Check tolerance		
cm3/1000s.	: +- 5	.0
Aneroid pressure		
hPa	4000	
Rated speed rpm Del. quantity	: 1000	,
cm3/1000 strokes	: 124	LΩ
Tolerance	• • • •	
cm3/1000 strokes	: +- 1	.0
Check tolerance		_
cm3/1000s.	: +- 4	.0
STARTING FUEL DEL	IVERY	
Rated speed rpm	: 100)
	. 100	•

LOW IDLE

Rated speed rpm : 500 Rack travel in mm : 6.00 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 22.5 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance 4.0 cm3/1000 strokes : Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.12.97 : ISO 4113

Combination No. : 0 402 736 906

Injection pump

Pump designation : PES6P120A120RS7416 EP type number : 0 412 726 959

Governor

Governer design. : RQV400...1250PA1060

: -4K

Governer no.

: 0 421 815 514

Cust. part No. : 3928146

Customer-spec. information Customer : CDC Motor : 6BTA-A Power KW : 130.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly -

Opening pressure

: 208.5 bar Tolerance bar : **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : \leftarrow 1.0

Prestroke mm : 3.60 : + 0.05Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

Start of delivery blocking

*NW after s.o.d. : 6.25 Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 13.65 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 160.5	Tolerance mm : + 0.25
Tolerance	Rated speed rpm : 1690 guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 11.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s. : + 4.0	
Spreed	GUIDE SLEEVE POSITION
Tolerance cm3/1000 strokes : 8.0	control lever position degree : VH Rated speed rpm : 1390
Check tolerance : 12.0	Rack travel in mm : 12.60
	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 420	Rated speed rpm : 1250
Rack travel in mm: 6.00	+ Aneroid pressure
Tolerance mm : +- 0.10 Del. quantity	+ hPa : 1200 + Del. quantity
cm3/1000 strokes : 15.0	cm3/1000 strokes : 160.5
Tolerance cm3/1000 strokes : +- 3.0	+ Tolerance + cm3/1000 strokes : +- 1.0
Check tolerance	Check tolerance
cm3/1000s. : +- 5.0 Spreed	- cm3/1000s. : +- 4.0 - Spreed
Toleranse	Tolerance
cm3/1000 strokes : 4.0	cm3/1000 strokes : 8.0
Check tolerance cm3/1000s. : 8.0	- Check tolerance cm3/1000s. : 12.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	CONTROL LEVER
CUIDE OF SELE SPANE	control lever
GUIDE SLEEVE TRAVEL	position degree : 117.0 tolerance degree : +- 4.0
Rated speed rpm : 1329	+
guide sleeve travel mm : 7.83	+ RATED SPEED + rack travel mm : 12.60
Tolerance mm : + 0.15	Rated speed rpm : 1325
Stand and all many and 100	Tolerance 1/min : +- 15
Rated speed rpm : 400 guide sleeve	† rack travel mm : 4.00
travel mm : 1.44	Rated speed rpm : 1475
Tolerance mm : ← 0.20	Tolerance 1/min : + 5
Rated speed rpm : 939 guide sleeve	rack travel mm : 0.50 Tolerance mm : + 0.50
travel mm : 5.18	Rated speed rpm : 1550
Tolerance mm : ← 0.25	‡
Rated speed rpm : 640 guide sleeve	***************************************
travel mm : 3.56	LOW IDLE

K04

control lever position degree tolerance degree	: 71.0 : +- 4.0
Control lever diff Grad tolerance degree	: 46.0
Setting point w/ou	rt bumper spring
Rated speed rpm	: 300
CRT mm min.	: > 5.80
Testing:	•
Rated speed rpm rack travel mm Tolerance mm	: 420 : 6.00 : ← 0.10
Rated speed rpm	: 425
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 800 : 11.85 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 1250 : 1200
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1250 : - : 10.40 : + 0.20
MEASUREMENT	
Rated speed rpm	: 1250
Pressure hPa rack travel mm Tolerance mm	: 375 : 12.70 : + 0.30
K05	

Pressure hPa rack travel mm Tolerance mm	: 260 : 11.60 : + 0.20	
Start interlock		
Rated speed rpm Rated speed rpm	: > 200 : < 340	
Check speed 1/min Check	: > 190	
speed 1/min	: < 360	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure	: 1200	
Rated speed rpm Del. quantity	: 800	
cm3/1000 strokes Tolerance	: 131.5	
cm3/1000 strokes Check tolerance cm3/1000S.	: + 3.0 : + 6.0	
Spreed Tolerance	. +- 0.0	
cm3/1000 strokes Check tolerance	: 8.0	
cm3/1000s.	: 12.0	
rack travel mm Tolerance mm	: 11.60 : + 0.20	
Aneroid pressure	: -	
Rated speed rpm Del. quantity	: 1250	
cm3/1000 strokes Tolerance		
cm3/1000 strokes Check tolerance		
cm3/1000s.	: +- 4.0	
STARTING FUEL DELIVERY		
Set starting CRT	at K-cam.	
Rated speed rpm rack travel mm Tolerance mm	: 100 : 14.10 : +- 0.50	

Del. quantity cm3/1000 strokes : 155.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s.: +- 25.0

LOW IDLE

Rated speed rpm : 420

Rack travel in mm: 6.00 Tolerance mm : + 0.10 Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : +-3.0

Check tolerance

cm3/1000s. 5.0

Spreed Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 02,12,97 : ISO 4113

Combination No. : 0 402 776 820

Injection pump

Pump designation : PES6P120A720RS7382 .

EP type number : 0 412 726 943

Governor

Governer design. : RSV400...1100P0A547

Soverner no.

: 0 421 833 488

Cust. part No. : RE501785

Customer-spec. information

Customer : DEERE : 6081 AF001 Motor

Power KW : 205.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C

Tolerance °C : + 2.0

Overflow valve : 2 417 413 079

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar : 208.5 Tolerance bar : **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

K07

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

17.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3.60 : +- 0.05 Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Start of delivery mark

*NW after s.o.d. : 7.50 : +- 0.50 Tolerance

Check

tolerance *NW : + 0.75

: 1 Barrel no.

Beginning of delivery differende

and maximum rack

travel 14.00 Difference * CS : 2.50

BASIC SETTING

Rated speed rpm : 1100

1	
Rack travel in mm: 11.80 Tolerance mm: + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity	Rated speed rpm : 1100
cm3/1000 strokes : 198.0	Aneroid pressure hPa : 1400
Tolerance cm3/1000 strokes : + 1.0	Del. quantity cm3/1000 strokes : 198.0 Tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000 strokes : +- 1.0 Check tolerance
Spreed	cm3/1000s. : +- 4.0 Spreed
Tolerance	Tolerance cm3/1000 strokes : 5.0
cm3/1000 strokes : 5.0	Check tolerance cm3/1000s. : 9.0
Check tolerance + cm3/1000s. : 9.0 +	
	CONTROL LEVER
Rated speed rpm : 400	control lever
Rack travel in ma : 5.85	position degree : 95.0 tolerance degree : +- 4.0
Tolerance mm : + 0.10 + Del. quantity	RATED SPEED
cm3/1000 strokes : 28.5	rack travel mm : 10.80
Tolerance	Rated speed rpm : 1170
cm3/1000 strokes : + 3.0 + Check tolerance	Tolerance 1/min : +- 5
cm3/1000s. : + 5.0	rack travel mm : 4.00
Spreed	Rated speed rpm : 1225
Tolerance	Tolerance 1/min : +- 5
cm3/1000 strokes : 8.0 + Check tolerance +	rack travel mm : 0.85
cm3/1000s. : 12.0	Tolerance mm : +- 0.55
+	Rated speed rom : 1300
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00
WITH GOVERNOR +	Rated speed rpm : 1230
‡	Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	
‡	LOW IDLE
control lever	
position degree : -3	control lever
Rated speed rpm : 800	position degree : 72.0
Rack travel in mm: 0.50	tolerance degree : +- 4.0
Tolerance mm : + 0.20	Setting point w/out bumper spring
governor spring	Poted speed page 1/00
pre-tension + click setting x : 3.25 +	Rated speed rpm : 400
T	rack travel mm : 5.35 Tolerance mm : +- 0.10
+	

Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm 400 rack travel mm : 5.85 : **←** 0.10 Tolerance mm TORQUE CONTROL Rated speed rpm 1100 : rack travel mm : 11.80 Tolerance mm : + 0.05 800 12.40 Rated speed rpm rack travel mm : + 0.10Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa 1400 Rated speed rpm 500 Pressure hPa 8.75 rack travel mm : + 0.10Tolerance mm MEASUREMENT Rated speed rpm 500 Pressure hPa : 880 11.50 rack travel mm : : **←** 0.20 Tolerance mm 450 Pressure hPa rack travel mm : 9.70 : **←** 0.05 Tolerance mm FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm

Rated speed rpm : 800 Del. quantity cm3/1000 strokes : 211.0

1400

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s. : +- 6.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del quantity

Del. quantity cm3/1000 strokes : 93.0

Tolerance

cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 105.0

Toleranse

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s. : +- 25.0

LOW IDLE

Rated speed rpm : 400

Rack travel in mm: 5.85
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 28.5

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : +- 5.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 02.12.97 : ISO 4113

Combination No. : 0 402 776 825

Injection pump

Pump designation : PES6P120A720RS7382

EP type number : 0 412 726 943

Governor

Governer design.

: RSV400...1100P0A574

: -7

Governer no.

: 0 421 833 496

Cust. part No. : RE501786

Customer-spec. information

Customer Motor

: DEERE : 6081 AF001

: 205.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line

: 4.2

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 2 417 413 079

Inlet press. bar :

Test nozzle holde

assembly

: 1 688 901 101

2.0

Opening pressure

bar

208.5

Tolerance bar

1.5

Test lines

: 1 680 750 015

Outside diameter :

6.0

K10

x inside diameter: 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

17.0 Test pressure bar :

Tolerance bar : +- 1.0

Prestroke mm 3.60

Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Start of delivery mark

*NW after s.o.d. : 7.50

: + 0.50 Tolerance

Check

tolerance "NW : + 0.75

Barrel no.

: 1

14.00

Beginning of delivery differende

and maximum rack

travel

Difference * CS : 2.50

BASIC SETTING

Rated speed rpm :

1100

Rack travel in mm : 11.80 Tolerance mm : + 0.05
Del. quantity cm3/1000 strokes : 198.0
Tolerance cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s. : + 4.0
Spreed
Tolerance cm3/1000 strokes : 5.0
Check tolerance : 9.0
Rated speed rpm : 400
Rack travel in mm : 5.85
Tolerance mm : + 0.10
Del. quantity cm3/1000 strokes : 28.5
Tolerance cm3/1000 strokes : +- 3.0
Check tolerance
cm3/1000S. : ← 5.0 Spreed
Tolerance
cm3/1000 strokes : 8.0 Check tolerance
cm3/1000s. : 12.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR
GUIDE SLEEVE POSITION
control lever position degree : - 3 Rated speed rpm : 800
Rack travel in mm: 0.50 Tolerance mm: + 0.20
governor spring pre-tension click setting x : 3.25

FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	: 1100
Aneroid pressure	4.400
hPa	: 1400
Del. quantity cm3/1000 strokes	: 198.0
Tolerance	. 170.0
cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	: + 4.0
Spreed	
Tolerance cm3/1000 strokes	. 50
Check tolerance	: 5.0
cm3/1000s.	: 9.0
CONTROL LEVER	
control lever	
position degree	: 95.0
tolerance degree	: +- 4.0
DATEN CDEEN	
RATED SPEED rack travel mm	: 10.80
Rated speed rpm	: 1170
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
Rated speed rpm Tolerance 1/min	: 1225 : + 5
TOTEL GIVE ITMENT	. +)
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1300
rack travel mm	: 4.00
Rated speed rpm	
Tolerance 1/min	
LOW IDLE	
control lever	
	: 72.0
position degree tolerance degree	: +- 4.0
0-11-2	to the same of the same o
Setting point w/o	ut bumper spring

Rated speed rpm : 400 rack travel mm : 5.35 Tolerance mm : + 0.10

Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 400 rack travel mm : 5.85 : + 0.10Tolerance mm TORQUE CONTROL Rated speed rpm : 1100 rack travel mm : 11.80 : + 0.05Tolerance mm Rated speed rpm : 800 : 12.40 rack travel mm : + 0.10 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 : 1400 Pressure hPa Rated speed rpm 500 Pressure hPa 8.75 rack travel mm Tolerance mm : + 0.10MEASUREMENT Rated speed rpm : 500 880 : Pressure hPa 11.50 rack travel mm : + 0.20Tolerance mm Pressure hPa 450 rack travel mm 9.70 · + 0.05 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure

1400

800

: +- 6.0 cm3/1000s. Aneroid pressure 500 Rated speed rpm : Del. quantity cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm : 20.50 : **←** 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : +- 20.0 Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Rated speed rpm : 400 Rack travel in mm : 5.85 : + 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 28.5 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance : cm3/1000s. 12.0

Check tolerance

End of test specification sheet

hPa

Rated speed rpm :

cm3/1000 strokes : 211.0

cm3/1000 strokes : + 3.0

Del. quantity

Tolerance

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Test oil

: 06.01.98 : ISO 4113

Combination No. : 9 400 030 695

Injection pump

Pump designation: PES4A95D320/3RS2880

EP type number : 9 410 037 214

Governor

Governer design. : RSV475...1250A0C825R

6overner no. : 9 420 034 701

Cust. part No. : 3928665

Customer-spec. information Customer : CDC Motor : 4BT3.9 Power KW : 82.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Tolerance bar : + 17.0

Prestroke mm : 2.45
Tolerance mm : + 0.05

Chieck

tolerance mm : + 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 8.00 Tolerance : + - 0.50Check

tolerance $^{\circ}NW$: + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 12.55 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 106.0

K13

	1	Check tolerance
Tolerance cm3/1000 strokes : +- 1	.0	cm3/1000s. : + 3.0 Spreed Tolerance
Check tolerance cm3/1000s. : + 3	5.0	cm3/1000 strokes : 4.0 Check tolerance
Spreed	<u> </u>	cm3/1000s. : 6.5
5 p. 666	1	
Tolerance cm3/1000 strokes : 4	.0	CONTROL LEVER
Check tolerance cm3/1000s. : 6	5.5	control lever position degree : 114.0 tolerance degree : + 4.0
Rated speed rpm : 475		RATED SPEED rack travel mm : 11.50 Rated speed rpm : 1335
Rack travel in mm : 5. Tolerance mm : + 0.		Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes : 20	1.5	rack travel mm : 6.80 Rated speed rpm : 1395
Tolerance cm3/1000 strokes : +- 2 Check tolerance	.0	Tolerance 1/min : + 5 rack travel mm : 0.85
	.5	Tolerance mm : +- 0.55 Rated speed rpm : 1500
	.0	rack travel mm : 6.80
Check tolerance cm3/1000s. : 8	.0	Rated speed rpm : 1395 Tolerance 1/min : + 15
(B) SETTING OF INJECTION P WITH GOVERNOR	UMP	LOW IDLE
		LOW IVEC
GUIDE SLEEVE POSITION	-	control lever position degree : 87.0 tolerance degree : + 4.0
control lever position degree : - 3 Rated speed rpm : 800	+	Control lever difference Grad : 27.0
Rack travel in mm : 0.		tolerance degree : + 4.0
Tolerance ma : \leftarrow 0.	20	Setting point w/out bumper spring
FULL LOAD DELIVERY AT FULL	LOAD STOP	Rated speed rpm : 475 rack travel mm : 5.30 Tolerance mm : + 0.10
Rated speed rpm : 1250 Aneroid pressure	+	Rated speed rpm : 100
hPa : 1000 Del. quantity cm3/1000 strokes : 106	+	CRT mm min. : > 19.00
Tolerance cm3/1000 strokes : + 1	+	Testing:

rack travel mm	:	5.80
Tolerance mm	: +-	0.10
TORQUE CONTROL	. 1	1250

12.55 rack travel mm Tolerance mm : +- 0.05

750 Rated speed rpm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1000

500 Rated speed rpm Pressure hPa rack travel mm 11.50 Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa 600 rack travel mm 12.30 Tolerance mm : → 0.20

Pressure hPa 460 11.75 rack travel mm : + 0.20Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 500 Rated speed rpm Del. quantity

cm3/1000 strokes : 80.5 Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +-3.0

STARTING FUEL DELIVERY

Rated speed rpm 100 20,50 rack travel mm Tolerance non : **←** 0.50 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance cm3/1000s.: +- 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 5.80 Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 20.5

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s.

Spreed Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 06,01,98 Edition Test oil : ISO 4113

Combination No. : 9 400 030 733

Injection pump

Pump designation : PES4A95D320/3RS2880

EP type number : 9 410 037 214

Governor

Governer design. :

Governer no. : 9 420 034 712

Cust. part No. : 3930149

Customer-spec. information Customer : CDC Motor : 4BT3.9 Power KW : 78.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.45 Tolerance mm : ← 0.05 Check tolerance mm : **←** 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance

: +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

"NW after s.o.d. : 7.50 Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 12.55 : +- 0.05 Tolerance mm

Del. quantity	Aneroid pressure
cm3/1000 strokes : 105.5	hPa : 1000 Del. quantity
Tolerance	cm3/1000 strokes : 105.5
cm3/1000 strokes : +- 1.0	Tolerance
Check tolerance	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000s. : + 3.0	cm3/1000s. : +- 3.0
Spreed	Spreed Tolerance
+	cm3/1000 strokes : 4.0
Tolerance + cm3/1000 strokes : 4.0 +	Check tolerance cm3/1000s. : 6.5
CIBS/1000 Strokes . 4.0	CIR3/ (UUUS. : 6.3
Check tolerance	
cm3/1000s. : 6.5	CONTROL LEVER
Rated speed rpm : 425	control lever position degree : 110.0
rated speed rpm : 425	position degree : 110.0 tolerance degree : + 4.0
Rack travel in mm: 6.00	•
Tolerance mm : + 0.10	RATED SPEED
Del. quantity + cm3/1000 strokes : 20.5 +	rack travel mm : 11.50 Rated speed rpm : 1270
Tolerance	Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0	Total wife 17 min.
Check tolerance	rack travel mm : 6.70
cm3/1000s. : + 4.5	Rated speed rpm : 1340
Spreed +	Tolerance 1/min : +- 5
Tolerance + cm3/1000 strokes : 6.0 +	rack travel mm : 0.85
Check tolerance	Tolerance mm : + 0.55
cm3/1000s. : 8.0	Rated speed rpm : 1400
†	rack travel mm : 6.70
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1340
WITH GOVERNOR	Tolerance 1/min : + 15
+	
GUIDE SLEEVE POSITION	
+	LOW IDLE
control lever	
position degree : -3	control lever
Rated speed rpm : 800	position degree : 87.0
+	tolerance degree : +- 4.0
Rack travel in mm: 0.50 + Tolerance mm: : + 0.20 +	Comband lover difficulties
Tolerance mm : + 0.20 †	Control lever difference Grad : 23.0
governor spring	tolerance degree : +- 4.0
pre-tension +	
click setting x : 4.75	Setting point w/out bumper spring
	Rated speed rpm : 425
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.50
The waste personally in the waste and	Tolerance mm : + 0.10
Rated speed rpm : 1200	2
+	Rated speed rpm : 100

CRT men mein.	: > 19.00	
Testing:		
Rated speed rpm rack travel mm Tolerance mm	: 425 : 6.00 : ← 0.10	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm		
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		
Rated speed rpm Pressure hPa	: 500 : 1000	
Rated speed rpm Pressure hPa	: 500 : -	
rack travel mm Tolerance mm	: 11.30 : ← 0.10	
MEASUREMENT		
Rated speed rpm	: 500	
Pressure hPa rack travel mm Tolerance mm	: 660 : 12.50 : ← 0.20	
Pressure hPa rack travel mm Tolerance mm	: 460 : 11.50 : ← 0.20	
FUEL DELIVERY CHARACTERISTICS		
Aneroid pressure		
hPa Rated speed rpm	500	
Del. quantity cm3/1000 strokes Tolerance	: 80.5	
cm3/1000 strokes Check tolerance	: ← 1.0	
cm3/1000s.	: ← 3.0	

Rated speed rpm rack travel mm Tolerance mm	:		100 20.50 0.50
Del. quantity cm3/1000 strokes Tolerance	:		120.0
cm3/1000 strokes Check tolerance	:	+-	10.0
cm3/1000s.	:	+-	15.0

LOW IDLE			
Rated speed rpm	:		425
Rack travel in mm Tolerance mm Del. quantity	:	+-	6.00 0.10
cm3/1000 strokes Tolerance	•		20.5
cm3/1000 strokes Check tolerance	;	+	2.0
cm3/1000S. Spreed Tolerance	:	+-	4.5
cm3/1000 strokes Check tolerance	:		6.0
cm3/1000s.	:		8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.01.98 Test oil : ISO 4113

Combination No. : F 002 A0Z 006

Injection pump

Pump designation : PES4A95D320/3RS2880

EP type number : 9 410 037 214

Governor

Governer design. : RSV475...1100A0C880R

Governer no. : F 002 A20 206

Cust. part No. : 3930154

Customer-spec, information Customer : CDC : 4BT3.9 Motor Power KW : 63.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temo. °C Tolerance °C 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : **←** 1.5

: 1 680 750 014 Test lines

Outside diameter : 6.0

x inside diameter : 2.0 x length man :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

: 2.45 Prestroke mm : **←** 0.05 Tolerance mm Check : +- 0.10 tolerance mm

Rack travel in mm : 10.50

: **←** 1.50 Tolerance mm

: 1-3-4-2 Firing order

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 6.50 Tolerance : + 0.50 Check

: **←** 0.75 tolerance *NW

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.80 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 97.5

Tolerance +	Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : + 1.0
 	Check tolerance
Check tolerance	$cm3/1000s.$: \leftarrow 3.0
cm3/1000s. : + 3.0	Spreed
1	Tolerance
Spreed	cm3/1000 strokes : 4.0
spreed	
7.1	Check tolerance
Tolerance	cm3/1000s. : 6.5
cm3/1000 strokes : 4.0 +	

Check tolerance	
cm3/1000s. : 6.5	CONTROL LEVER
+	
+	control lever
· •	position degree : 108.0
Rated speed rpm : 475	
	RATED SPEED
Rack travel in mm: 5.80	rack travel mm : 10.80
Tolerance mm : + 0.10	Rated speed rpm : 1155
Del. quantity	Tolerance 1/min : +- 5
cm3/1000 strokes : 20.5	TOTAL CHANGE THE TELESTICS OF THE TELEST
Tolerance	rack travel mm : 6.00
cm3/1000 strokes : + 2.0 +	Rated speed rpm : 1220
Check tolerance +	Tolerance 1/min : +- 5
cm3/1000s. $: \leftarrow 4.5$	
Spreed	rack travel mm : 0.85
Tolerance +	Tolerance mm : + 0.55
cm3/1000 strokes : 6.0 +	Rated speed rpm : 1400
Check tolerance	· ·
cm3/1000s. : 8.0 +	rack travel mm : 6.00
1	Rated speed rpm : 1220
1	Tolerance 1/min : +- 15
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	
WEITI GOVERNOON	
	LOW IDLE
GUIDE SLEEVE POSITION	LOW IDEE
GOIDE STEEAE LOSTLION	
Ť	control lever
Towns to the state of the state	
control lever	position degree : 89.0
position degree : -3	0.004 - 1.11 - 0.00 - 12.66
Rated speed rpm : 800 +	Control lever difference
†	Grad : 19.0
Rack travel in mm: 0.50	tolerance degree : +- 4.0
Tolerance mm : + 0.20 +	
+	Setting point w/out bumper spring
governor spring +	
pre-tension +	Rated speed rpm : 475
click setting < : 5.00	rack travel mm : 5.30
1	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
TOLL LOAD DELIVERY AT TOLL LOAD STOT	Nated speed i piii . 100
Rotard annual appr a 1100	CRT mm min. :> 19.00
Rated speed rpm : 1100	CRIMMENTAL : 2 17.00
Aneroid pressure	T
hPa : - +	Testing:
Del. quantity +	
cm3/1000 strokes : 97.5 +	Rated speed rpm : 475

rack travel mm 5.80 : + 0.10 Tolerance mm

TORQUE CONTROL

1100 Rated speed rpm : rack travel mm : 11.80 Tolerance ma : + 0.05

Rated speed rpm 750 : rack travel mm 12.25 : Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Ratted speed rom 750 Del. quantity

cm3/1000 strokes : 100.5

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 20.50 : **←** 0.50 Tolerance man Del. quantity

cm3/1000 strakes : 122.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 475

5.80 Rack travel in mm: Tolerance mm : **←** 0.10

Del. quantity

cm3/1000 strokes : 20.5

Tolerance

2.0 cm3/1000 strokes : +

Check tolerance

cm3/1000s.: +-4.5

Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s.8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 06.01.98 : ISO 4113

Combination No. : F 002 A0Z 043

Injection pump

Pump designation : PES6A95D320/3RS2881.

EP type number : 9 410 037 215

Governor

Governer design. : RSV500...1100A0C925R

Governer no. : F 002 A20 233

Cust. part No. : 3932478

Customer-spec. information Customer : CDC Motor : 6BT

Power KW : 90.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

40 temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : +- 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : - 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

*NW after s.o.d. : 7.00 : +- 0.50 Tolerance

Check

tolerance *NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 10.85 Tolerance mm : \leftarrow 0.05

1	Aneroid pressure
Del. quantity cm3/1000 strokes : 86.0	hPa : 900 Del. quantity
Tolerance	cm3/1000 strokes : 86.0 Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s. : + 3.0	cm3/1000s. : +- 3.0 Spreed Tolerance
Spreed	cm3/1000 strokes : 3.5 Check tolerance
Tolerance cm3/1000 strokes : 3.5	cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 6.0	CONTROL LEVER
	control lever
+	position degree : 94.0
Rated speed rpm : 500	tolerance degree : +- 4.0
Rack travel in mm: 5.40	RATED SPEED
Tolerance mm : + 0.10 +	rack travel mm : 9.80
Del. quantity	Rated speed rpm : 1165
cm3/1000 strokes : 18.5	Tolerance 1/min : + 5
ca3/1000 strokes : +- 2.0	rack travel mm : 6.00
Check tolerance	Rated speed rpm : 1225
cm3/1000s. : + 4.5	Tolerance 1/min : + 5
Spreed	
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 3.5 + Check tolerance	Tolerance mm : + 0.55
cm3/1000s. : 5.5	Rated speed rpm : 1350
1 3.3	rack travel mm : 6.00
1	Rated speed rpm : 1230
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : + 15
WITH GOVERNOR +	
‡	
GUIDE SLEEVE POSITION	LOW IDLE
control lever	control lever
position degree : -3	position degree : 80.0
Rated speed rpm : 800	tolerance degree : +- 4.0
+	
Rack travel in mm: 0.50	Control lever difference
Tolerance mm : + 0.20	Grad : 14.0 tolerance degree : +- 6.0
governor spring	total dilica degli ea 0.0
pre-tension	Setting point w/out bumper spring
click setting x : 3.50	
+	Rated speed rpm : 500
CHILLIAND DELTUEDY AT FINE LAND ATTA	rack travel mm : 4.90
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance man : + 0.10
Rated speed rpm : 1100	Rated speed rpm : 100

CRT mm min. :> 19.00

Testing:

Rated speed rpm : 500 rack travel mm : 5.40 Tolerance mm : +- 0.10

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 10.85 Tolerance mm : + 0.05

Rated speed rpm : 800 rack travel mm : 11.55 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 800 Pressure hPa : -

MEASUREMENT

Pressure hPa : 800 rack travel mm : 11.05 Tolerance mm : + 0.30

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 800 Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : + 2.0
Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 120.5

Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 500

Rack travel in mm : 5.40
Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 18.5 Tolerance

2.0

3.5

cm3/1000 strokes : +- Check tolerance

cm3/1000s. : +- 4.5 Spreed

Tolerance cm3/1000 strokes :

Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 05.01.98 Test oil : ISO 4113

Combination No. : 0 400 863 026

Injection pump

Pump designation : PES3A950410/3RS2939.

EP type number : 0 410 893 995

Governor

Governer design. : RSV325...1250A5C858L

Governer no. : 0 420 232 621

Cust. part No. : 0423 2520 KY

Customer—spec. information Customer : KHD

Motor : F3L913 com1

Power KW : 44.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : ← 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 17.50 Tolerance mm : + 1.50

Firing order : 1- 3- 2

Phasing : 0-120-240 Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 9.80 Tolerance mm : + 0.05

Rack travel in mm : 9.00 Tolerance mm : + 0.10

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : FREE Rated speed rpm : 800

Rack travel in mm : 0.50 Tolerance mm : + 0.20

governor spring

pre-tension

click setting x : 5.00

CONTROL LEVER

control lever

position degree : 108.0 tolerance degree : +- 4.0

RATED SPEED

rack travel mm : 8.80 Rated speed rpm : 1295 Tolerance 1/min : +- 5

rack travel mm : 4.00 Rated speed rpm : 1345 Tolerance 1/min : + 15

rack travel mm : 0.85
Tolerance mm : + 0.55
Rated speed rpm : 1530

rack travel mm : 4.00
Rated speed rpm : 1370
Tolerance 1/min : + 15

LOW IDLE

control lever

position degree : 76.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 325
rack travel mm : 8.50
Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.50

Testing:

Rated speed rpm : 325 rack travel mm : 9.00 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 9.80 Tolerance mm : ← 0.05

Rated speed rpm : 500

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.50 Tolerance mm : + 0.75

LOW IDLE

Rack travel in mm : 9.00 Tolerance mm : + 0.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 05.01.98 Test oil : ISO 4113

Combination No. : 0 400 864 112

Injection pump

Pump designation : PES4A95D410/3RS2934

EP type number : 0 410 894 983

Governor

Governer design. : RSV325...1250A5C858L

6overner no. : 0 420 232 621

Cust. part No. : 0423 2525 KY

Customer-spec. information Customer : KHD

Motor

: F4L913 COM1

Power KW

: 59.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

Tolerance bar

: 173.5 : ← 1.5

Test Lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : + 1.0

Prestroke mm : 3.00 Tolerance mm : ← 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 17.50

Tolerance mm : + 1.50

Firing order : 1-3-4-2

: 0-90-180-270 : ← 0.50 Phasing

Phasing Tolerance

Check

: **←** 0.75 tolerance *NW

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 9.80

Tolerance mm : \leftarrow 0.05

Rack travel in mm: 9.00 Tolerance m_1 : +- 0.10

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : FREE Rated speed rpm : 800

Rack travel in mm: 0.50
Tolerance mm: + 0.20

governor spring

pre-tension

click setting x : 5.00

CONTROL LEVER

control lever

position degree : 108.0 tolerance degree : + 4.0

RATED SPEED

rack travel mm : 8.80
Rated speed rpm : 1295
Tolerance 1/min : + 5

rack travel mm : 4.00 Rated speed rpm : 1345 Tolerance 1/min : +- 15

rack travel man : 0.85
Tolerance man : + 0.55
Rated speed rpm : 1530

rack travel mm : 4.00 Rated speed rpm : 1370 Tolerance 1/min : + 15

LOW IDLE

control lever

position degree : 76.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 325
rack travel mm : 8.50
Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.50

Testing:

Rated speed rpm : 325 rack travel mm : 9.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 540
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 9.80 Tolerance mm : + 0.05

Rated speed rpm : 500

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.50 Tolerance mm : + 0.75

LOW IDLE

Rack travel in mm : 9.00 Tolerance mm : + 0.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.01.98 Test oil : ISO 4113

Combination No. : 0 400 864 114

Injection pump

Pump designation : PES4A95D410/3RS2934

EP type number : 0 410 894 983

6overnor

Governer design. : RSV325...1250A5C861L

: 0 420 232 624 Governer no.

Cust. part No. : 0423 2527 KY

Customer-spec. information

Customer : KHD

: F4L913 COM1 : 59.0 Motor

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

: 173.5 bar

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 17.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 9.80 Tolerance nm: \leftarrow 0.05

Rack travel in mm: 9.00 Tolerance mm : \leftarrow 0.10

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : FREE Rated speed rpm : 800

Rack travel in mm: 0.50 Tolerance mm: + 0.20

governor spring

pre-tension

click setting x : 5.00

CONTROL LEVER

control lever

position degree : 108.0 tolerance degree : + 4.0

RATED SPEED

rack travel mm : 8.80
Rated speed rpm : 1295
Tolerance 1/min : + 5

rack travel mm : 4.00 Rated speed rpm : 1345 Tolerance 1/min : +- 15

rack travel non : 0.85
Tolerance non : +- 0.55
Rated speed rpm : 1530

rack travel mm : 4.00
Rated speed rpm : 1370
Tolerance 1/min : +- 15

LOW IDLE

control lever

position degree : 76.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 325
rack travel mm : 8.50
Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.50

Testing:

Rated speed rpm : 325 rack travel mm : 9.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 540
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 9.80 Tolerance mm : + 0.05

Rated speed rpm : 500

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.50 Tolerance mm : + 0.75

LOW IDLE

Rack travel in mm : 9.00 Tolerance mm : + 0.10

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 05.01.98 Test oil : ISO 4113

Combination No. : 0 400 865 031

Injection pump

Pump designation : PES5A95D410/3RS2936

EP type number : 0 410 895 969

Governor

Governer design. : RSV325...1250A5c885L

Governer no. : 0 420 232 637

Cust. part No. : 0423 2530 KY

Customer-spec. information

Customer : KHD

Motor : F5L 912 COM1

Power KW : 68.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 17.50 Tolerance mm : + 1.50

Firing order : 1-3-5-4-2

Phasing : 0-72-144-216-288

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 10.50 Tolerance mm : + 0.05

Rack travel in mm : 9.80 Tolerance mm : + 0.10

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : FREE Rated speed rpm : 800

Rack travel in mm : 0.50
Tolerance mm : + 0.20

governor spring

pre-tension

click setting x : 5.00

CONTROL LEVER

control lever

position degree : 110.0 tolerance degree : + 4.0

RATED SPEED

rack travel mm : 9.50
Rated speed rpm : 1295
Tolerance 1/min : + 5

rack travel mm : 4.00
Rated speed rpm : 1355
Tolerance 1/min : +- 15

rack travel mm : 0.85
Tolerance mm : + 0.55
Rated speed rpm : 1550

rack travel mm : 4.00
Rated speed rpm : 1415
Tolerance 1/min : +- 15

LOW IDLE

control lever

position degree : 76.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 325 rack travel mm : 9.30 Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.50

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Testing:

Rated speed rpm : 325
rack travel mm : 9.80
Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 650
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 10.50 Tolerance mm : + 0.05

Rated speed rpm : 500

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.50 Tolerance mm : + 0.75

LOW IDLE

Rack travel in mm : 9.80 Tolerance mm : + 0.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 05.01.98 : ISO 4113

Combination No. : 0 400 866 238

Injection pump

Pump designation: PES6A95D410/3RS2938

EP type number : 0 410 896 881

Governor

Governer design. : RSV325...1250A5C950L Governer no. : 0 420 232 641

Cust. part No. : 0423 2532 KY

Customer-spec. information

Customer : KHD

Motor

: F6L913 COM1

Power KW

: 89.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temo. °C

Tolerance *C

: +-

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm :

: **←** 0.05 Tolerance mm

Check

tolerance mm : **←** 0.10

Rack travel in mm: 17.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.50

Tolerance mm : +- 0.05

Rack travel in mm : 9.80 Tolerance mm : \leftarrow 0.10

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : FREE Rated speed rpm : 800

Rack travel in mm : 0.50
Tolerance mm : + 0.20

governor spring

pre-tension

click setting x : 5.00

CONTROL LEVER

control lever

position degree : 110.0 tolerance degree : + 4.0

RATED SPEED

rack travel mm : 9.50
Rated speed rpm : 1295
Tolerance 1/min : +- 5

rack travel mm : 4.00 Rated speed rpm : 1355 Tolerance 1/min : +- 15

rack travel mm : 0.85
Tolerance mm : + 0.55
Rated speed rpm : 1550

rack travel mm : 4.00
Rated speed rpm : 1415
Tolerance 1/min : + 15

LOW IDLE

control lever

position degree : 76.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Ratted speed rpm : 325 rack travel mm : 9.30 Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.50

Testing:

Rated speed rpm : 325 rack travel mm : 9.80 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 650
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 10.50 Tolerance mm : + 0.05

Rated speed rpm : 500

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.50 Tolerance mm : + 0.75

LOW IDLE

Rack travel in mm : 9.80 Tolerance mm : + 0.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 02.01.98

Test oil

: ISO 4113

Combination No. : 9 400 030 751

Injection pump

Pump designation : PES6A95D320/3RS2881.

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1050A0C866R

Governer no. : F 002 A20 202

Cust. part No. : 393 0158

Customer-spec. information Customer : CUMMINS : 6BT Motor

Power KW

: 94.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.2

Test oil inlet

temp. °C

Tolerance "C

: **←** 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar

: +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mma :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0

Tolerance bar : + 1.0

Prestroke mm 2.85 : + 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 : + 0.10 Tolerance

Check

tolerance *NW : ← 0.29

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 12.40

Tolerance mm : +- 0.05

Del. quantity to the cm3/1000 strokes : 90.3	Aneroid pressure hPa : 950
+	Del. quantity
Tolerance cm3/1000 strokes : +- 1.0 +	cm3/1000 strokes : 90.3 Tolerance
Check tolerance	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000s. : + 3.0	cm3/1000s. : + 3.0 Spreed
Spreed	Tolerance
Tolerance	cm3/1000 strokes : 4.0 Check tolerance
cm3/1000 strokes : 4.0	cm3/1000s. : 6.5
Check tolerance cm3/1000s. : 6.5	
	CONTROL LEVER
Ţ.,	control lever
Rated speed rpm : 475	position degree : 102.0 tolerance degree : +- 4.0
Rack travel in mm: 6.75	•
Tolerance mm : + 0.10 +	RATED SPEED
Del. quantity	rack travel mm : 11.40
cm3/1000 strokes : 18.6	Rated speed rpm : 1095 Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0	Toterance Timin : +- 5
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5	Rated speed rpm : 1190
Spreed	Tolerance 1/min : +- 15
Tolerance	
cm3/1000 strokes : 6.0	rack travel mm : 0.85
Check tolerance	Tolerance mm : +- 0.55
cm3/1000s. : 8.0	Rated speed rpm : 1280
+	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1200
WITH GOVERNOR	Tolerance 1/min : +- 15
<u> </u>	
GUIDE SLEEVE POSITION	
‡	LOW IDLE
control lever	andral laves
position degree : - 3	control lever
Rated speed rpm : 800	position degree : 84.0 tolerance degree : + 4.0
Rack travel in mm: 0.50	toterance degree . The 4.0
Tolerance mm : ÷ 0.20	Control Lever difference
	Grad : 18.0
governor spring	tolerance degree : +- 4.0
pre-tension +	
click setting x : 4.00	Setting point w/out bumper spring
+	Rated speed rpm : 475
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 6.25
Patad anadana 4050	Tolerance mm : + 0.10
Rated speed rpm : 1050	Rated speed rpm : 100
•	•

CRT mm min.	: > 19.50	‡	Del. quantity cm3/1000 strokes	: 103.0
Testing:		Ŧ	Tolerance cm3/1000 strokes	: + 2.0
Rated speed rpm rack travel mm Tolerance mm	: 475 : 6.75 : + 0.10	†	Check tolerance cm3/1000s.	: + 4.0
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 610 : + 30	† † †	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 12.40 : + 0.05		Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.10 : +- 0.10	Ī	STARTING FUEL DEL	IVERY
ANEROID/ALTITUDE COMPENSATOR TEST			Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 20.50 : ← 0.50
SETTING		Ī	Tolerance cm3/1000 strokes Check tolerance	: +- 10.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 950 : 13.50	+	cm3/1000s.	: +- 15.0
Rated speed rpm Pressure hPa rack travel mm	: 650 : - : 12.20	†	LOW IDLE	
Tolerance non		Ī	Rated speed rpm Rack travel in mm	: 6.75
MEASUREMENT Rated speed rpm	: 650	‡	Tolerance mm Del. quantity cm3/1000 strokes	
Pressure hPa	: 850	+	Tolerance cm3/1000 strokes	
rack travel mm Tolerance mm	: 13.10 : + 0.20	-	Check tolerance cm3/1000s. Spreed	: +- 4.5
Pressure hPa rack travel mm Tolerance mm	: 800 : 12.90 : + 0.20	+	Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0 : 8.0
FUEL DELIVERY CHA	ARACTERISTICS	‡		
Aneroid pressure hPa Rated speed rpm	: 950 : 800	†	End of test speci	fication sheet

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Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.01.98 Test oil : ISO 4113

Combination No. : 0 401 846 370

Injection pump

Pump designation : PE6P110A320RS157 EP type number : 0 411 816 108

Governor

Governer design. : RQV250...550/1150PA1

: 40R

Governer no. : 0 421 813 184

Cust. part No. : 516208005011

Customer spec. information Customer : STEYR Motor : 7 FA Power KW : 235.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

L10

x inside diameter : 1.5 : 600 x length man REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : 26.0 Tolerance bar : +- 1.0 2.05 Prestroke mm : +- C.05 Tolerance mm Check tolerance mm : +- 0.10 Rack travel in mm : 10.50 Tolerance ma : +- 1.50 Firing order : 1-5-3-6-2-Phasing : 0-60-120-180-240 : -300 Tolerance : + 0.50Check tolerance 'NW : **←** 0.75 Start of delivery mark Tolerance : + - 0.50Check tolerance 'NW : + 0.75Barrel no. BASIC SETTING Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance

: +-

4.0

cm3/1000s.

Spreed

Tolerance	•	
cm3/1000	strokes	:

4.0

Check tolerance cm3/1000s.

8.0

Rated speed rpm : 250

Rack travel in mm: 6.50 Tolerance mm : **←** 0.10 Del. quantity cm3/1000 strokes : 16.0 Tolerance

cm3/1000 strokes : +- 3.0 Check tolerance : +- 5.5 cm3/1000s.

Spreed Tolerance

cm3/1000 strokes : 4.0 Check tolerance

cm3/1000s. 7.0

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : - 1 Rated speed rpm : 1150

Rack travel in mm: 16.50 Tolerance m_1 : \leftarrow 1.30

FULL LOAD DELIVERY AT FULL LOAD STOP

: + 4.0

Rated speed rpm : 1150 Aneroid pressure

900 hPa

Del. quantity

cm3/1000 strokes : 170.0

Tolerance

cm3/1000 strokes : + 1.0Check tolerance

cm3/1000s. Spreed

Tolerance cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 8.0

CONTROL LEVER

control lever

position degree : 66.0 tolerance degree : + 4.0

RATED SPEED

rack travel mm 11.20 Rated speed rpm : 1195 Tolerance 1/min : +-

rack travel mm 4.00 Rated speed rpm 1265 Tolerance 1/min : +- 15

rack travel mm 0.50 : **←** 0.50 Tolerance mm Rated speed rpm : 1450

LOW IDLE

control lever

position degree : 10.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 700

CRT ma min. :>7.90

Testing:

250 Rated speed rpm rack travel mm 6.50 : + 0.10Tolerance mm

rack travel mm 2.00 Rated speed rpm : 430 Tolerance 1/min ...

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa 900 : rack travel mm 12.25 Tolerance mm ; +- 0.05

Rated speed rpm	:	500
Pressure hPa	:	-
rack travel mm	:	10.75
Tolerance mm	: +	- 0.05

MEASUREMENT

Rated	speed	rpm	:	500
-------	-------	-----	---	-----

Pressure hPa	:	300
rack travel mm	:	11.00
Tolerance mm	: +	- 0.10

Pressure hPa	:	380
rack travel mm	:	11.75
Tolerance ma	: +	- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	-
Data dana adam	_	1150

Rated speed rpm : 1150 Del. quantity

cm3/1000 strokes : 133.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : \leftarrow 5.0

Spreed

Check tolerance

cm3/1000s. : 9.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 215.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : \leftarrow 19.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mm: 6.50
Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 16.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : +- 5.5

Spreed

Tolerance cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. : 7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08.01.98 : ISO 4113

Combination No. : 0 401 886 702

Injection pump

Pump designation : PE6P110A721RS3341

EP type number : 0 411 816 796

Governor

Governer design. : RSV400...1200P1A527

: -1

Governer no.

: 0 421 833 455

Cust. part %. : 615.60.08.0039

Customer-spec. information : SNF Customer

: WD615.88 Motor Power KW : 228.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Tolerance bar : + 0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

: 1 680 750 089 Test lines

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : ഹ്ഥ

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : 2.85 : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance "NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 13.80 Tolerance mm: \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 188.0

Tolerance

cm3/1000 strokes : +- 1.0

L13

Check tolerance	+ Check tolerance
cm3/1000s. : +- 4.0	+ cm3/1000s. : + 4.0
	+ Spreed
Spreed	+ Tolerance
	+ cm3/1000 strokes : 4.0
Tolerance	+ Check tolerance
cm3/1000 strokes : 4.0	+ cm3/1000s. : 7.5
CHO/ 1000 Strokes : 4.0	T (1807 1900) (1.3
	†
Check tolerance	†
cm3/1000s. : 7.5	
	+ CONTROL LEVER
	+
	+ control lever
Rated speed rpm : 400	+ position degree : 116.0
rated speed rpm . 400	
~	tolerance degree : + 4.0
Rack travel in mm: 3.10	†
Tolerance mm : + 0.10	+ RATED SPEED
Del. quantity	+ rack travel mm : 12.80
cm3/1000 strokes : 14.0	+ Rated speed rpm : 1245
Tolerance	+ Tolerance 1/min : +- 5
cm3/1000 strokes : + 3.0	
Check tolerance	rack travel mm : 4.00
	1
	Rated speed rpm : 1300
Spreed	+ Tolerance 1/min : + 15
Tolerance	+
cm3/1000 strokes : 4.5	+ rack travel mm : 0.85
Check tolerance	+ Tolerance mm : + 0.55
cm3/1000s. : 7,5	+ Rated speed rpm : 1400
(B) SETTING OF INJECTION PUMP	Ī
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
WITH GOVERNOR	‡
	control lever
WITH GOVERNOR	control lever position degree : 78.0
GUIDE SLEEVE POSITION	control lever
GUIDE SLEEVE POSITION control lever	control lever position degree : 78.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION control lever position degree : - 3	control lever position degree : 78.0
GUIDE SLEEVE POSITION control lever	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing:
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 400
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 400
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 400
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 400 rack travel mm : 3.10
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1200	control lever position degree : 78.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 400 rack travel mm : 3.10 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1200 Del. quantity	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 400 rack travel mm : 3.10 Tolerance mm : + 0.10 rack travel mm : 2.00
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 188.0	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 400 rack travel mm : 3.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 465
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 188.0 Tolerance	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 400 rack travel mm : 3.10 Tolerance mm : + 0.10 rack travel mm : 2.00
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 188.0	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.60 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 400 rack travel mm : 3.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 465

TORQUE CONTROL

Rated speed rpm : 1200 rack travel mm : 13.80 Tolerance mm : + 0.05

Rated speed rpm : 700 rack travel mm : 13.80 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 13.80
Tolerance mm : +- 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 10.10
Tolerance mm : +- 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 360 rack travel mm : 11.00 Tolerance mm : + 0.20

Pressure hPa : 600 rack travel mm : 12.80 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200 Rated speed rpm : 700 Del. quantity

cm3/1000 strokes : 198.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : +- 6.0

Aneroid pressure

hPa : -Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 5.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 14.30 Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 205.0

Tolerance

cm3/1000 strokes : + 15.0

LOW IDLE

Rated speed rpm : 400

Rack travel in mm: 3.10
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 14.0
Tolerance
cm3/1000 strokes: + 3.0

cm3/1000 strokes : +- 3.0
Check tolerance

cm3/1000s. : + 5.5 Spreed

Tolerance

cm3/1000 strokes : 4.5 Check tolerance

cm3/10/00s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 14.01.98 Test oil : ISO 4113

Combination No. : 0 402 646 704

Injection pump

Pump designation : PE6P120A320LS7904 EP type number : 0 412 626 961

Governor

Governer design. : RQV300...950PA1377

Governer no. : 0 421 814 208

Cust. part No. : 04223929 KY

Customer—spec. information Customer : KHD

Motor : BF6M1015/C Power KW : 300.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 033

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 240
Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x tength mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.05
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 300.00 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 950

,	
Rack travel in mm : 13.70	Rated speed rpm : 1160
Tolerance mm : + 0.05	guide sleeve
	travel mm : 13.50
Del. quantity	Tolerance mm : +- 0.50
cm3/1000 strokes : 350.0	Total diffee man
-	
Tolerance	GUIDE SLEEVE POSITION
cm3/1000 strokes : + 1.0 +	
	Rated speed rpm : 1028
Check tolerance	
cm3/1000s. : + 4.0	Rack travel in mm : 12.70
*	Tolerance $m = : + 1.30$
Spreed	
Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : 6.0	POLL LOAD DELIVERY AT FULL LOAD STOP
T	Rated speed rpm : 950
Check tolerance	Aneroid pressure
cm3/1000s. : 9.0	hPa : 1700
 	Del. quantity
-	cm3/1000 strokes : 350.0
 +	Tolerance
Rated speed rpm : 300 +	cm3/1000 strokes : +- 1.0
.	Check tolerance
Rack travel in mm : 6.00	cm3/1000s. : + 4.0
Tolerance mm : + 0.10 + Del. quantity +	Spreed Tolerance
cm3/1000 strokes : 23.0	cm3/1000 strokes : 6.0
Tolerance +	Check tolerance
cm3/1000 strokes : + 3.0	cm3/1000s. : 9.0
Check tolerance	
cm3/1000s. : $+$ 6.0	
Spreed	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 8.0	
Check tolerance	control lever
cm3/1000s. : 12.0 +	position degree : 122.0
<u> </u>	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	RATED SPEED
WITH GOVERNOR	rack travel mm : 12.70
+	Rated speed rpm : 985
4 Company (1988) - 1984	Tolerance 1/min : + 5
GUIDE SLEEVE TRAVEL	
+	rack travel mm : 4.50
Rated speed rpm : 999	Rated speed rpm : 1035
guide sleeve travel mm : 10.19	Tolerance 1/min : + 15
Tolerance mm : 10.19 +	
Toterance mm : T U.13	
Rated speed rpm : 300	
guide sleeve	LOW IDLE
travel ma : 1.13	· · · · · · · · · · · · · · · · · ·
Tolerance imm : + 0.20	
+	control Lever
Rated speed rpm : 700	position degree : 78.0
guide sleeve	tolerance degree : + 4.0
travel mm : 5.10 +	
Tolerance mm : + 0.25 +	Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. :> 7.77

Testing:

Rated speed rpm : 3 rack travel mm : 300 6.00 : + 0.10Tolerance mm

Rated speed rpm : 345

TORQUE CONTROL

Rated speed rpm : 950 rack travel mm : 13.70 : ← 0.05 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 400 Pressure hPa : 1700 rack travel mm : 13.70 Tolerance mm : +- 0.05

Rated speed rpm : 400 Pressure hPa : rack travel mm : 8.40 Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 400

Pressure hPa : 550 rack travel mm : 10.40 : + 0.10 Tolerance mm

: 1000 Pressure hPa rack travel mm : 12.50 : **←** 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

400 Rated speed rpm :

Del. quantity

cm3/1000 strokes : 230.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 8.40 Tolerance mm : + 0.30 rack travel mm : Del. quantity cm3/1000 strokes : 135.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 6.00 Tolerance mm : \leftarrow 0.10 Del. quantity

cm3/1000 strokes : 23.0 Tolerance

cm3/1000 strokes : +- 3.0 Check tolerance

cm3/1000s. : **←** 6.0 Spreed

Tolerance cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09.01.98 : ISO 4113

Combination No. : 0 402 746 601A

Injection pump

Pump designation : PES6P120A720RS7389.

EP type number : 0 412 726 944

Governor

Governer design. : RQ275/1050PA1021-4

Governer no. : 0 421 801 795

Cust. part No. :

Customer-spec. information

Customer : IVECO-FRANCE : 8460.41.711 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : Tolerance bar : +- 0.1

Overflow quantity

Tolerance l/h :+ 145 : **←** 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : **←** 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 5.15 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: **←** 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery mark

Check

tolerance 'NW : + 0.40

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 10.10 Tolerance mn: +- 0.05

Del. quantity cm3/1000 strokes : 151.0	Tolerance mm : + 0.10
Tolerance	+ Rated speed rpm : 470 + guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 6.00 Tolerance mm : + 0.10
Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 1270
Spreed	+ guide sleeve + travel mm : 11.50 + Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. 9.0	T GOIDE SELEVE FOSTITON
275	control lever position degree : 109 Rated speed rpm : 1164
Rated speed rpm : 275	† + Rack travel in mm : 9.15
Rack travel in mn: 4.60 Tolerance mm: + 0.10	Tolerance mm : + 1.30
Del. quantity cm3/1000 strokes : 23.0 Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 3.0 Check tolerance	Rated speed rpm : 1050 Aneroid pressure
cm3/1000s. : +- 6.0 Spreed	hPa : 900 Del. quantity
Tolerance cm3/1000 strokes : 8.0	cm3/1000 strokes : 151.0
Check tolerance cm3/1000s. : 12.0	cm3/1000 strokes : +- 1.0 Check tolerance
(1137 10003	cm3/1000s. : +- 4.0 Spreed
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance cm3/1000 strokes : 5.0
WITH GOTEMON	+ Check tolerance
GUIDE SLEEVE TRAVEL	+ cm3/1000s. : 9.0
Rated speed rpm : 1116 guide sleeve	RATED SPEED
travel mm : 6.40	Rated speed rpm : 1110
Tolerance mm : +- 0.15	Tolerance 1/min : + 8
Rated speed rpm : 275 guide sleeve	rack travel mm : 4.00 Rated speed rpm : 1150
travel mm : 1.99	+ Tolerance 1/min : + 15
Tolerance mm : + 0.20	rack travel mm : 0.50
Rated speed rpm : 1050	+ Tolerance mm : + 0.50
guide steeve	Rated speed rpm : 1350
travel mm : 6.00	+
Tolerance mm : + 0.10	1
Rated speed rpm : 367	LOW IDLE
guide sleeve travel mm : 4.29	T LOW IDEL
91 47 6 mm 4 7 6 6 7	ı

	+	- Rated speed rpm : < 195
control lever	 	-
position degree	: /3.0	- Check
tolerance degree	: + 4.0	- speed 1/min :> 80 - Check
Setting point w/s	aut beman enging	- speed 1/min : < 215
second bout w	or bumper spring	- Speed Milli . \ 213
Rated speed rpm	: 175	
•	+	- FUEL DELIVERY CHARACTERISTICS
CRT mm min.	: > 6.10	-
Testing:	†	Anomaid management
resung:	1	- Aneroid pressure - hPa : 900
Rated speed rpm	• 275	- Rated speed rpm : 600
rack travel mm	4.60	- Del. quantity
Tolerance mm	: + 0.10	- cm3/1000 strokes : 152.5
		- Tolerance
rack travel mm	: 2.00	- cm3/1000 strokes : +- 3.0
Rated speed rpm		- Check tolerance
Tolerance 1/min	: +- 20	$-$ cm3/1000s. : \leftarrow 6.0
	+	-
TORQUE CONTROL		A company of the comp
Rated speed rpm	: 1050	- Aneroid pressure - hPa : -
rack travel mm	: 10.10	- Rated speed rpm : 600
Tolerance mm	: +- 0.05	- Nateu speed rpm . Out - Del. quantity
TOTAL CHIEF	0.05	- cm3/1000 strokes : 124.0
Rated speed rpm	: 600	- Tolerance
rack travel mm		- cm3/1000 strokes : +- 1.0
Tolerance mm		- Check tolerance
	+	- cm3/1000s. : +- 4.0
		-
ANEROID/ALTITUDE	†	-
COMPENSATOR TEST	1	- STARTING FUEL DELIVERY
	I	- STARTING FUEL DELIVERY
SETTING		- Rated speed rpm : 100
	4	- Del. quantity
Rated speed rpm	: 600	- cm3/1000 strokes : 170.0
Pressure hPa	: 900	- Tolerance
rack travel mm		- cm3/1000 strokes : +- 15.0
Tolerance mm	: +- 0.05 	- Check tolerance
Ontail mand on		- cm3/1000s. + 19.0
Rated speed rpm	: 600	•
Pressure hPa rack travel mm	9.20	-
Tolerance mm		
TO COLOR TO CHAR	1	- LOW IDLE
MEASUREMENT	4	-
	+	- Rated speed rpm : 275
Rated speed rpm	: 600	-
	+	- Rack travel in mm : 4.60
Pressure hPa	: 350	Tolerance mm : + 0.10
rack travel mm	9.50	- Del. quantity
Tolerance mm	: ← 0.05	- cm3/1000 strokes : 23.0
		- Tolerance - cm3/1000 strokes : +- 3.0
Start interlock		- Check tolerance
Judic Hitelitotik		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	I	
Rated speed rpm	· > 100	- cm3/1000s. : +- 6.0 - Spreed

Tolerance : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) \$400/...

Edition : 0 Test oil : I

: 08.01.98 : ISO 4113

Combination No. : 0 402 846 301

Injection pump

Pump designation : PE6P120A320RS8508 EP type number : 0 412 826 201

Governor

Governer design. : RQV275...1000PA1099K

6overner no. : 0 421 815 983

Cust. part No. : 1287579/4

Customer—spec. information Customer : DAF Motor : WS 315 M Power KW : 315.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 180
Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.35
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 13.35 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 321.5

Tolerance	→ guide sleeve
cm3/1000 strokes : + 1.0	+ travel mm : 3.08
	+ Tolerance mm : +- 0.25
Check tolerance	
cm3/1000s. : + 5.0	Rated speed rpm : 400
CIRD/ 10000.	+ guide sleeve
Channel	
Spreed	
- ·	+ Tolerance mm : + 0.25
Tolerance	†
cm3/1000 strokes : 6.0	+ Rated speed rpm : 1310
	+ guide sleeve
Check tolerance	† travel mm : 13.50
cm3/1000s. : 12.0	Tolerance mm : + 0.50
	GUIDE SLEEVE POSITION
Rated speed rpm : 275	doing organia
nated speed this . 213	T
Dools Annual in was a F 90	T ambust laves
Rack travel in mm: 5.80	+ control lever
Tolerance mm : + 0.10	+ position degree : -1
Del. quantity	+ Rated speed rpm : 1130
cm3/1000 strokes : 13.0	+
Tolerance	+ Rack travel in mm : 12.70
cm3/1000 strokes : + 3.0	+ Tolerance mm : +- 1.30
Check tolerance	
cm3/1000s. : + 6.0	
Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	TOCK COAD DECLARATION TOCK COAD STOR
cm3/1000 strokes : 8.0	Rated speed rpm : 980
Charle to Language	
Check tolerance	+ Aneroid pressure
cm3/1000 s. : 13.0	+ hPa : -
	+ Del. quantity
	+ cm3/1000 strokes : 321.5
(B) SETTING OF INJECTION PUMP	cm3/1000 strokes : 321.5 Tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
	Tolerance + cm3/1000 strokes : +- 1.0
	Tolerance : + 1.0 Check tolerance
WITH GOVERNOR	Tolerance : + 1.0 Check tolerance : + 5.0
	Tolerance cm3/1000 strokes : + 1.0 check tolerance cm3/1000s. : + 5.0 Spreed
GUIDE SLEEVE TRAVEL	Tolerance cm3/1000 strokes : + 1.0 check tolerance cm3/1000s. : + 5.0 Spreed Tolerance
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050	Tolerance cm3/1000 strokes : + 1.0 check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89	Tolerance cm3/1000 strokes : + 1.0 check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45 Tolerance mm : + 0.25 Rated speed rpm : 6.25	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45 Tolerance mm : + 0.25 Rated speed rpm : 6.25 Rated speed rpm : 284 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : + 5
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45 Tolerance mm : + 0.25 Rated speed rpm : 6.25 Rated speed rpm : 284 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45 Tolerance mm : + 0.25 Rated speed rpm : 6.25 Rated speed rpm : 284 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : + 5
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45 Tolerance mm : + 0.25 Rated speed rpm : 6.45 Tolerance mm : 284 guide sleeve travel mm : 284 guide sleeve travel mm : 2.27	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1150
GUIDE SLEEVE TRAVEL Rated speed rpm : 1050 guide sleeve travel mm : 9.89 Tolerance mm : + 0.20 Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 692 guide sleeve travel mm : 6.45 Tolerance mm : + 0.25 Rated speed rpm : 6.25 Rated speed rpm : 284 guide sleeve	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 12.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : + 5 rack travel mm : 4.00

LOW IDLE	
control lever position degree tolerance degree	: 76.0 : + 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 175
CRT mm min.	: > 8.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 405 : +- 20
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 980 : 13.35 : + 0.05
Rated speed rpm rack travel mm Folerance mm	: 750 : 12.75 : + 0.05
Rated speed rpm rack travel mm Folerance mm	
Rated speed rpm rack travel mm Folerance mm	: 500 : 12.00 : + 0.10
Rated speed rpm rack travel mm Folerance mm	

Pressure hPa : 1500
rack travel mm : 13.35
Tolerance mm : 40.05

Rated speed rpm : 980
Pressure hPa : rack travel mm : 8.90
Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 980

Pressure hPa : 750
rack travel mm : 12.25
Tolerance mm : + 0.05

Pressure hPa : 420
rack travel mm : 10.00
Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 316.0 Tolerance cm3/1000 strokes : \leftarrow 2.0 Check tolerance cm3/1000s. : \leftarrow 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance 13.0 cm3/1000s. rack travel mm : 12.05 Tolerance mm : + 0.10 Aneroid pressure hPa Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 188.0 Tolerance cm3/1000 strokes : +- 1.0

: +- 5.0

Check tolerance

cm3/1000s.

SETTING

Rated speed rpm : 980

L25

LOW IDLE

Rated speed rpm	:	275	
Rack travel in mm Tolerance mm	: +-	5.80 0.10	
Del. quantity cm3/1000 strokes	•	13.0	
Tolerance	· : +-	3.0	
Check tolerance cm3/1000s.	: +-	6.0	
Spreed Tolerance			
cm3/1000 strokes Check tolerance	:	8.0	
cm3/1000s.	:	13.0	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 14.01.98 Test oil : ISO 4113

Combination No. : 0 403 436 109

Injection pump

Pump designation : PES6MW100/120RS1143 EP type number : 0 413 406 137

Governor

Governer design. : RQV300...1050MW82-4

Governer no. : 0 420 083 168

Cust. part No. : 3915581

Customer—spec. information Customer : CUMMINS Motor : 6 CTA-830 Power KW : 175.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 017

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.10
Tolerance mm : + 0.05
Check

Rack travel in mm: 10.50

Tolerance $m_{\rm H}$: + 1.50

Firing order : 1-5-3-6-2-

: 4

: +- 0.10

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

tolerance mm

Rated speed rpm : 1050

Rack travel in mm: 12.65

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 149.8

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000S. : + 3.0

Spreed

Tolerance cm3/1000s strokes : 3.5 Check tolerance cm3/1000s. : 6.0 Check tolerance cm3/1000s. : 6.0 Check tolerance cm3/1000s. : 4.3.0 Spreed Tolerance cm3/1000s. : 4.3.0 Spreed Construction cm3/1000s. : 4.3.0 Check tolerance cm3/1000s. : 6.0 Check tolerance cm3/1000s. : 6.0 Control Lever cm3/1000s strokes : 3.5 Check tolerance cm3/1000s. : 6.0 Control Lever construction cm3/1000s strokes : 4.5 Control Lever control Lever com3/1000s strokes : 4.5 Check tolerance cm3/1000s strokes : 3.5 Check tolerance cm3/1000s. : 6.5 Check tolerance cm3/1000s strokes : 3.5 Check tolerance cm3/1000s strokes : 4.0 Control Lever cm3/1000s strokes : 4.0 Check tolerance cm3/1000s strokes : 4.0 Check tolerance cm3/1000s strokes : 4.0 Control Lever cm3/100s strokes : 4.0 Check tolerance cm3/100s Check tolerance cm3/100s Check tolerance cm3/100s Check tolerance cm3/100s Check tolerance cm3/10s Check		
Check tolerance cm3/1000S. : 6.0 maid tolerance cm3/1000S. : 6.0 Check tolerance cm3/1000S. : 6.0 Check tolerance cm3/1000S. : 6.0 make travel in mm : 8.00 Tolerance mm : + 0.10 Del. quartity cm3/1000 strokes : 18.0 Tolerance cm3/1000S. : + 4.5 Spreed Tolerance dm3/1000S. : + 4.5 Spreed Tolerance cm3/1000S. : - 5.5 RATED SPEED rack travel mm : 11.60 Rated speed rpm : 1095 Tolerance 1/min : + 5 Tolerance 1/min : + 5 Tolerance 1/min : + 15 Tolerance 1/min : + 10 Tolerance 1/		Tolerance
Check tolerance cm3/1000S. : 6.0 maid tolerance cm3/1000S. : 6.0 Check tolerance cm3/1000S. : 6.0 Check tolerance cm3/1000S. : 6.0 make travel in mm : 8.00 Tolerance mm : + 0.10 Del. quartity cm3/1000 strokes : 18.0 Tolerance cm3/1000S. : + 4.5 Spreed Tolerance dm3/1000S. : + 4.5 Spreed Tolerance cm3/1000S. : - 5.5 RATED SPEED rack travel mm : 11.60 Rated speed rpm : 1095 Tolerance 1/min : + 5 Tolerance 1/min : + 5 Tolerance 1/min : + 15 Tolerance 1/min : + 10 Tolerance 1/	cm3/1000 strokes : 3.5	cm3/1000 strokes : +- 1.0
check tolerance cm3/1000S. : 6.0 cm3/1000S. : → 3.0 spreed Tolerance cm3/1000S strokes : 3.5 check tolerance cm3/1000S strokes : 3.5 check tolerance cm3/1000S. : → 0.10 con3/1000S strokes : 3.5 check tolerance cm3/100OS. : → 4.0 control Lever control Lever position degree : 101.0 colerance degree : → 4.0 control Lever position degree : → 6.50 control Le		
Spreed S	Check tolerance	
Tolerance mail 1000 ma		
Rated speed rpm : 300 Rack travel in mm : 8.00 Tolerance mm : + 0.10 bel quartity cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Toker tolerance cm3/1000 strokes : 3.5 Tolerance mm : 1.00 Rated speed rpm : 1000 Rated speed rpm : 1000 Rated speed rpm : 300 Ruide sleeve travel mm : 8.00 Tolerance mm : + 0.10 Rated speed rpm : 300 Ruide sleeve travel mm : 1.50 Tolerance mm : + 0.20 Rated speed rpm : 550 Rated speed rpm : 550 Rated speed rpm : 1210 Rated speed rpm : 1210 Rated speed rpm : 1210 Rated speed rpm : 500 Rated speed rpm : 0.30 Rated speed rpm : 1210 Rated speed rpm : 1210 Rated speed rpm : 500 Rated speed rpm : 3.30 Rated speed rpm : 1210 Rated speed rpm : 300 Rated speed rpm : 3000 Rated speed rpm : 3000 Rated speed r		
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(B) SETTING OF INJECTION PUMP WITH GOVERNOR Tolerance 1/min : ← 15	I	Pated speed rpm · 1200
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Aneroid pressure + Rated speed rpm : 1050 + rack travel mm : 12.65 + Tolerance mm : + 0.05 cm3/1000 strokes : 149.0 + Rated speed rpm : 1050 + rack travel mm : + 0.05 + 0.05	TOLL COMP PERSON IN TOLK COMP OTOL	
Aneroid pressure + Rated speed rpm : 1050 + rack travel mm : 12.65 + Tolerance mm : + 0.05 cm3/1000 strokes : 149.0 + Rated speed rpm : 1050 + rack travel mm : + 0.05 + 0.05	Rated speed row : 1050	TORQUE CONTROL
hPa : 900 + rack travel mm : 12.65 Del. quantity + Tolerance mm : + 0.05 cm3/1000 strokes : 149.0 +		
Del. quantity + Tolerance mm : + 0.05 cm3/1000 strokes : 149.0		
cm3/1000 strokes : 149.0	=	
		total dire titil . The U.U.
+ rated speed (bill : 100	CIRD/ IUUU SETONES . 147.U	Pated speed rom . 700
	†	varen sheed thin . (O)

rack travel mm Tolerance mm		Check tolerance cm3/1000s. : 7.0
ANEROID/ALTITUDE COMPENSATOR TEST		Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
SETTING	<u> </u>	cm3/1000 strokes : 93.0 Tolerance
Rated speed rpm Pressure hPa	: 900	cm3/1000 strokes : + 1.G Check tolerance
rack travel mm Tolerance mm		cm3/1000s. ; + 3.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 10.30	STARTING FUEL DELIVERY
MEASUREMENT	0.10	Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00
Rated speed rpm	+	Del. quantity cm3/1000 strokes : 220.0 Tolerance
Pressure hPa rack travel mm Tolerance mm	: 450 : 12.20 : ← 0.20	cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000s. : +- 8.0
Pressure hPa rack travel mm Tolerance mm	: 225 : 10.90 : + 0.05	LOUI YOUR
Start interlock	<u> </u>	LOW IDLE Rated speed rpm : 300
	+	
Rated speed rpm Rated speed rpm		Rack travel in mm : 8.00 Tolerance mm : +- 0.10 Del. quantity
Check mpeed 1/min Check	:> 80	cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : +- 2.0
speed 1/min	: < 240	Check tolerance cm3/1000S. : +- 4.5
FUEL DELIVERY CHA	RACTERISTICS	Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance
Aneroid pressure hPa Rated speed rpm Del. quantity	: 900 : 700	cm3/1000s. : 5.5
cm3/1000 strokes Tolerance cm3/1000 strokes	: 147.0 : + 1.5	End of test specification sheet
Check tolerance cm3/1000s. Spreed Tolerance	: + 4.0	
cm3/1000 strokes	: 5.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 13.01.98 Test oil : ISO 4113

Combination No. : 0 403 466 131

Injection pump

Pump designation : PES6MW100/120RS1184 : 0 413 406 171 EP type number

Governor

Governer design. : RSV375...1250MW2A334

: -1

: 0 420 085 207 Governer no.

Cust. part No. : 3281954

Customer-spec. information : CUMMINS Customer Motor : 6 BTA 5.9 : 140.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

: 1 417 413 047 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar 1.5

: 1 680 750 014 Test lines

Outside diameter: 6.0

MO2

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 3.55 : + 0.05Tolerance ma

Check

tolerance mm : + - 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : + - 0.50Check

tolerance 'NW : +- 0.75

BASIC SETTING

1250 Rated speed rpm :

Rack travel in mm : 10.35

Tolerance mm : +- Q.05

Del. quantity

cm3/1000 strokes : 111.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed

Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance + cm3/1000s. : 6.0 +	
	CONTROL LEVER
Rated speed rpm : 375	control lever position degree : 111.0 tolerance degree : + 4.0
Rack travel in mm: 7.25 + Tolerance mm: + 0.25 +	RATED SPEED
Del. quantity cm3/1000 strokes : 18.0	rack travel mm : 9.30 Rated speed rpm : 1300
Tolerance + 2.0 +	Tolerance 1/min : +- 5
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5 Spreed	Rated speed rpm : 1380 Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes : 3.5	rack travel mm : 1.00
Check tolerance	Tolerance mm : + 0.70
cm3/1000s. : 5.5	Rated speed rpm : 1550
	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1435 Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION	LOW IDLE
}	
control lever	control leven
control lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 87.0
position degree : -3 Rated speed rpm : 800	
position degree : -3	position degree : 87.0
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25 Rated speed rpm : 100
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 800	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 375
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 111.0	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 375
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 111.0 Tolerance	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 375
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 111.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 375 rack travel mm : 7.25 Tolerance mm : + 0.25
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 111.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 375 rack travel mm : 7.25 Tolerance mm : + 0.25
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 111.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	position degree : 87.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.75 Tolerance mm : + 0.25 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 375 rack travel mm : 7.25 Tolerance mm : + 0.25

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm : Pressure hPa 800 rack travel mm : 10.35 Tolerance mm : +- 0.05

Rated speed rpm : 500 Pressure hPa : 9.90 rack travel mm : **←** 0.05 Tolerance mm

MEASUREMENT

500 Rated speed rpm :

470 Pressure hPa : rack travel mm : 10.05 : +- 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 90.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.: +- 3.C

STARTING FUEL DELIVERY

100 Rated speed rpm : rack travel mm : 20.00 : + 1.00 Tolerance mm

Del. quantity

cm3/1000 strokes : 85.0

Tolerance

cm3/1000 strokes : +- 5.0

Check tolerance

cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm : 375

Rack travel in mm : 7.25 Tolerance mm

Del. quantity

cm3/1000 strokes : 18.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance cm3/1000s.

Spreed

Tolerance cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 13.01.98 Edition Test oil : 15.01.98

Combination No. : 0 403 466 139

Injection pump

Pump designation : PES6MW100/120RS1148. EP type number : 0 413 406 143

Governor

Governer design. : RSV400...750MW7A319

: -25

: 0 420 085 217 Governer no.

Cust. part No. : 3921083

Customer-spec. information Customer : CDC : 6 CTA Motor : 180.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 017 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

: 3.65 Prestroke mm Tolerance mm : + 0.05 Check : + 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

*NW after s.o.d. : 9.00

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 750

Rack travel in mm: 13.05 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 180.5

Tolerance +	Tolerance
cm3/1000 strokes : +- 1.0	
this/ lood strokes : +- 1.0	cm3/1000 strokes : +- 1.0
<u> </u>	Check tolerance
Check tolerance	$cm3/1000s.$: \leftarrow 4.0
cm3/1000s. : + 4.0	Spreed
1	Tolerance
Special T	
Spreed +	cm3/1000 strokes : 4.0
+	Check tolerance
Tolerance +	cm3/1000s. : 7.5
cm3/1000 strokes : 4.0	
Charle to Language	
Check tolerance	
cm3/1000s. : 7.5	CONTROL LEVER
<u> </u>	
	control lever
1	position degree : 98.0
Rated speed rpm : 400	
Rated speed rpm : 400	tolerance degree : +- 4.0
t	
Rack travel in mm: 6.25	RATED SPEED
Tolerance mm : + 0.10 }	rack travel mm : 12.00
Del. quantity	Rated speed rpm : 792
cm3/1000 strokes : 18.0	Tolerance 1/min : + 3
The state of the s	Toterance Tribin : T
Tolerance	
cm3/1000 strokes : + 2.0 +	rack travel mm : 4.00
Check tolerance +	Rated speed rpm : 830
cm3/1000s. : + 4.5	Tolerance 1/min : + 5
Spreed	TOCOT GITTO THE TITLE OF THE TOTAL OF THE TO
	mode drawn and 4 00
Tolerance	rack travel mma : 1.00
cm3/1000 strokes : 3.5	Tolerance mm : + 0.70
Check tolerance	Rated speed rpm : 1000
	• • • • • • • • • • • • • • • • • • • •
cm3/1000s. : 5.5 +	
cm3/1000s. : 5.5	rack traval mm · / 00
cm3/1000s. : 5.5	rack travel mm : 4.00
‡	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00
‡	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00 LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
(B) SETTING OF INJECTION PUMP	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION	LOW IDLE control lever position degree : 78.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3	LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever	LOW IDLE control lever position degree : 78.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever position degree : - 3 Rated speed rpm : 800	LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65	LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever position degree : - 3 Rated speed rpm : 800	LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65	LOW IDLE control Lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mms : + 0.35	LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. : > 19.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	LOW IDLE control Lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing:
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing:
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 400
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 400
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25 Tolerance mm : + 0.10
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25 Tolerance mm : + 0.10
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure hPa : -	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 750
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure hPa : - Del. quantity	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 750 rack travel mm : 13.05
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure hPa : -	control lever position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 400 rack travel mm : 6.25 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 750

STARTING FUEL DELIVERY

Rated speed rpm : 100 20.00 rack travel mm Tolerance mm : + 1.00

Del. quantity

cm3/1000 strokes : 135.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance cm3/1000s. : +- 13.0

LOW IDLE

Rated speed rpm : 400

6.25 Rack travel in mm: Tolerance mm : + 0.10

Del. quantity

cm3/1900 strokes : 18.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.5

Spreed

Tolerance

3.5 cm3/1000 strokes :

Check tolerance

cm3/1000s.5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 14.01.98 Test oil : ISO 4113

Combination No. : 0 403 466 156

Injection pump

Pump designation : PES6MW100/120RS1238.

EP type number : 0 413 406 237

Governor

Governer design. : RSV450...1100MW2A374

6overner no. : 0 420 085 257

cust. part No. : 3926881

Customer—spec. information

Customer : CDC

Motor : 6 CT-830 Power KW : 160.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

MO8

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 8.00 Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.00 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 143.0

Tolerance + 1.0	Tolerance cm3/1000 strokes : +- 1.0
Check tolerance cm3/1000s. : + 4.0	Check tolerance cm3/1000s. : + 4.0 spreed
Spreed	Tolerance cm3/1000 strokes : 4.0 Check tolerance
Tolerance cm3/1000 strokes : 4.0	cm3/1000s. : 7.5
Check tolerance cm3/1000s. : 7.5	CONTROL LEVER
Rated speed rpm : 450	<pre>control lever position degree : 110.0 tolerance degree : +- 4.0</pre>
Rack travel in mm : 5.00 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 12.0	RATED SPEED rack travel mm : 11.00 Rated speed rpm : 1150 Tolerance 1/min : + 5
cm3/1000 strokes : 12.0 + Tolerance cm3/1000 strokes : + 2.0 + Check tolerance	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1265
cm3/1000s. : + 4.5 Spreed	Tolerance 1/min : +- 15
Tolerance + cm3/1000 strokes : 3.5 + Check tolerance + -	rack travel mm : 0.85 Tolerance mm: : + 0.55 Rated speed rpm : 1375
cm3/1000s. : 5.5	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1275 Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever position degree : -3 Rated speed rpm : 800	control lever position degree : 88.0 tolerance degree : +- 4.0
Rack travel in mm: 0.65 Tolerance mm: + 0.35	Setting point w/out bumper spring
governor spring + pre-tension + click setting x : 5.50	Rated speed rpm : 450 rack travel mm : 4.80 Tolerance mm : + 0.10
cerek setting x : 5.50	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 19.50
Rated speed rpm : 1100 Aneroid pressure	Testing:
hPa : 1100 + Del. quantity +	Rated speed rpm : 450 rack travel mm : 5.00
cm3/1000 strokes : 143.0 +	Tolerance mm : + 0.20

TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: +	1100 12.00 - 0.05
Rated speed rpm	:	750

rack travel mm : 750
Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1100
rack travel mm : 12.45
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 10.40
Tolerance mm : +- 0.05

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 850 rack travel mm : 11.90 Tolerance mm : + 0.20

Pressure hPa : 625
rack travel mm : 11.00
Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1100 hPa 750 Rated speed rpm Del. quantity 154.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s.9.0

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 115.0
Tolerance
cm3/1000 strokes : +- 1.0
Check tolerance
cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Check hydraulic start locking and unlocking device with 500...1000 hPa.

Rated speed rpm rack travel mm Tolerance mm	:		100 20.00 1.00
Del. quantity cm3/1000 strokes Tolerance	:		170.0
cm3/1000 strokes Check tolerance	:	+	10.0
cm3/1000s.	:	+-	13.0

LOW IDLE

Rated speed rpm 450 : Rack travel in mm: 5.00 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 13.01.98 : ISO 4113 Test oil

Combination No. : 0 403 466 168

Injection pump

Pump designation : PES6MW100/120RS1238.

EP type number : 0 413 406 237

Governor

Governer design. : RSV450...1000MW2A389

Governer no. : 0 420 085 269

Cust. part No. : 3929167

Customer-spec. information

Customer : CDC

: 6 €T~830 Fotor Power KW : 134.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 : :- 2.0 Tolerance *C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar 208.5 Tolerance bar : ← 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 2.80 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.50

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 11.10 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 132.0

Tolerance +	Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : + 1.0
distribution strokes . • 1.0	
	Check tolerance
Check tolerance +	cm3/1000s. : +- 4.0
$cm3/1000s.$: \leftarrow 4.0	Spreed
1	Tolerance
Consideration	
Spreed +	cm3/1000 strokes : 4.0
+	Check tolerance
Tolerance +	cm3/1000s. : 7.5
cm3/1000 strokes : 4.0	1 113
T T T T T T T T T T T T T T T T T T T	
Check tolerance	
cm3/1000s. : 7.5	CONTROL LEVER
1	variation action
	AANAN A LANGO
†	control lever
. +	position degree : 96.0
Rated speed rpm : 425	tolerance degree : +- 4.0
1	
Book trough in me . E EO	DATEN COPEN
Rack travel in mm: 5.50 +	RATED SPEED
Tolerance m_0 : \leftarrow 0.20	rack travel mm : 10.10
Del. quantity	Rated speed rpm : 1040
cm3/1000 strokes : 25.0	Tolerance 1/min : + 5
	TOLETEDRE HARITI . T. J
Tolerance +	
cm3/1000 strokes : +- 2.0 +	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1115
cm3/1000s. : +- 4.5	Tolerance 1/min : + 15
	Toterarice Triain : +- 13
Spreed +	
Tolerance +	rack travel mm : 0.85
cm3/1000 strokes : 3.5	Tolerance $m : \leftarrow 0.55$
· ·	
Check tolerance +	Rated speed rpm : 1250
cm3/1000s. : 5.5	
1	rack travel mm : 4.00
1	Rated speed rpm : 1120
(0) 0777110 07 71117077011 01/110	
(B) SETTING OF INJECTION PUMP +	Tolerance 1/min : + 15
WITH GOVERNOR +	
1	
1	
Ţ	
<u> </u>	
GUIDE SLEEVE POSITION +	LOW IDLE
+	
1	
T	combined devices
control lever +	control lever
position degree : - 3	position degree : 77.0
Rated speed rpm : 800	tolerance degree : + 4.0
1	
Dool Amount do man a 0.65	0-442
Rack travel in mm: 0.65	Setting point w/out bumper spring
Tolerance mm : + 0.35	
1	Rated speed rpm : 425
governor spring	rack travel mm : 5.00
governor spring +	
pre-tension +	Tolerance mm : +- 0.10
click setting x : 5.50 +	
<u> </u>	Rated speed rpm : 100
	opera i piii i i i i i i i i i i i i i i i i
EN 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ADT
FULL LOAD DELIVERY AT FULL LOAD STOP +	CRT mm min. : > 19.00
+	
Rated speed rpm : 1000	Testing:
The second of th	rooting.
Aneroid pressure +	
hPa : 1000 +	Rated speed rpm : 425
	The state of the s
Del quantity	
Del. quantity + cm3/1000 strokes : 132.0 +	rack travel mm : 5.50 Tolerance mm : +- 0.20

TORQUE CONTROL Rated speed rom : rack travel mm

1000 11.10 :

Tolerance ma

: +- 0.05

Rated speed rpm rack travel mm 700 11.90

Tolerance mm

: + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 1000 Pressure hPa rack travel mon 11.90

Tolerance mm

: + 0.10

Rated speed rpm 500 Pressure hPa 10.30 rack travel mm : + 0.05Tolerance mm

MEASUREMENT

500 Rated speed rpm :

650 Pressure hPa 11.05 rack travel mm Tolerance mm : + 0.15

Pressure hPa 550 rack travel mm 10.65 : + 0.10Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 1000 Rated speed rom 700 Del. quantity

cm3/1000 strokes : 148.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance cm3/1000s.

5.0 : +-

Spreed Tolerance

cm3/1000 strokes : 6.0

Check tolerance cm3/1000s.

9.0

Aneroid pressure

Rated speed rpm 500

Del. quantity

cm3/1000 strokes : 117.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

STARTING FUEL DELIVERY

Check hydraulic start locking and unlocking device with 500...1000 hPa.

Rated speed rpm 100 : rack travel mm 20.00 : Tolerance mm : + 1.00 Del. quantity

cm3/1000 strokes : 170.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 13.0

LOW IDLE

Rated speed rpm : 425

Rack travel in mm : 5.50 Tolerance mm : +- 0.20

Del. quantity

cm3/1000 strokes : 25.0

Tolerance

cm3/1000 strokes : +- 2.0 Check tolerance

cm3/1000s.

: +-4.5 Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 13.01.98 : ISO 4113

Combination No. : 0 403 466 173

Injection pump

Pump designation : PES6MW100/120RS1241

EP type number : 0 413 406 240

Governor

Governer design. : RSV400...950MW0A384

: -1

Governer no.

: 0 420 085 285

Cust. part No. : 3930118

Customer-spec. information : CDC Customer Motor : 6 CT : 145.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm : 2.80 : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : ← 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.50

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 950

Rack travel in mm: 12.50 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 147.0

Tolerance cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000s. : + 4.0 Spreed Tolerance
Spreed	cm3/1000 strokes : 4.0 Check tolerance
Tolerance cm3/1000 strokes : 4.0	cm3/1000s. : 7.5
Check tolerance cm3/1000s. : 7.5	CONTROL LEVER
Rated speed rpm : 400	control lever position degree : 82.0 tolerance degree : + 4.0
Rack travel in mm: 5.60 Tolerance mm: + 0.30 Del. quantity	RATED SPEED rack travel mm : 11.50 Rated speed rpm : 995
cm3/1600 strokes : 22.0	Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 1080
cm3/1000s. : +- 4.5 Spreed Tolerance	Tolerance 1/min : + 15 rack travel mm : 0.85
cm3/1000 strokes : 3.5 Check tolerance	Tolerance mm : +- 0.55 Rated speed rpm : 1250
cm3/1000s. : 5.5	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1095 Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 68.0 tolerance degree : + 4.0
Rack travel in mm: 0.65 Tolerance mm: + 0.35	Setting point w/out bumper spring
governor spring + pre-tension +	Rated speed rpm : 400 rack travel mm : 5.30 Tolerance mm : +- 0.10
click setting x : 3.25	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 19.50
Rated speed rpm : 950 + Aneroid pressure +	Testing:
hPa : 1200 + Del. quantity	Rated speed rpm : 400 rack travel mm : 5.60
cm3/1000 strokes : 147.0	Tolerance mm : + 0.30

rack travel mma	: 2	.00
Rated speed rpm	: 50	5
Tolerance 1/min	: +	35

TORQUE CONTROL
Rated speed rpm : 950

rack travel mm : 12.50 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed non : 500
Pressure hPa : 1200
rack travel mm : 12.50
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 10.25
Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 850 rack travel mm : 11.60 Tolerance mm : + 0.20

Pressure hPa : 680 rack travel mm : 10.75 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

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rack travel mm	:		20.00
Tolerance man	:	+-	1.00
Del. quantity			
cm3/1000 strokes	:		170.0
Tolerance			
cm3/1000 strokes	:	+-	10.0
Check tolerance			
cm3/1000s.	:	+-	13.0

LOW IDLE

Rated speed rpm	:		400
Rack travel in man Tolerance man Del. quantity	-	+	5.60 0.30
cm3/1000 strokes	:		22.0
cm3/1000 strokes Check tolerance	:	+-	2.0
cm3/1000s. Spreed	:	+-	4.5
Tolerance cm3/1000 strokes	:		3.5
Check tolerance cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 13.01.98 : ISO 4113

Combination No. : 0 403 466 180

Injection pump

Pump designation : PES6MW100/120RS1238.

EP type number : 0 413 406 237

Governor

Governer design. : RSV425...1150MW2A407

Governer no. : 0 420 085 298

Cust. part No. : 3284067

Customer-spec. information Customer : CDC : 6 CT

Motor Power KW : 129.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mn: + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance 'NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 8.25

Barrel no. :

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 9.95 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 119.0

Tolerance cm3/1000 strokes : + 1.0	- Tolerance - cm3/1000 strokes : ← 1.0 - Check tolerance
Check tolerance cm3/1000s. : +- 4.0	- cm3/1000s. : ← 4.0 - Spreed - Tolerance
Spreed	- cm3/1000 strokes : 4.0 - Check tolerance
Tolerance cm3/1000 strokes : 4.0	- cm3/1000s. : 7.5
Check tolerance cm3/1000s. : 7.5	- CONTROL LEVER
Rated speed rpm : 440	control lever position degree : 109.0 tolerance degree : +- 4.0
Rack travel in mm: 5.25 Tolerance mm: : + 0.10 Del. quantity cm3/1000 strokes: 24.5 Tolerance	RATED SPEED rack travel mm : 8.90 Rated speed rpm : 1200 Tolerance 1/min : +- 5
cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed	rack travel mm : 4.00 Rated speed rpm : 1300 Tolerance 1/min : +- 5
Tolerance - cm3/1000 strokes : 3.5 - Check tolerance - cm3/1000s. : 5.5 -	rack travel mm : 1.00 Tolerance mm : +- 0.70 Rated speed rpm : 1400
(B) SETTING OF INJECTION PUMP - WITH GOVERNOR -	rack travel mm : 4.00 Rated speed rpm : 1300 Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION	- LOW IDLE
control lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 87.0 tolerance degree : +- 4.0
Rack travel in mm : 0.65 - Tolerance mm : +- 0.35 -	Setting point w/out bumper spring
governor spring - pre-tension - click setting x : 3.75	- Rated speed rpm : 440 - rack travel mm : 4.75 - Tolerance mm : +- 0.10
	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 19.00
Rated speed rpm : 1150 - Aneroid pressure -	Testing:
hPa : 900 - Del. quantity -	Rated speed rpm : 440 rack travel mm : 5.25
cm3/1000 strokes : 119.0	Tolerance mm : + 0.10

TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 9.95 Tolerance mm : 4 0.05 Rated speed rpm : 750 rack travel mm : 10.20 Tolerance mm : 4 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 900 rack travel mm : 10.30 Tolerance mm : 4 0.10 Rated speed rpm : 500 Pressure hPa : 900 rack travel mm : 10.10 Tolerance mm : 4 0.20 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 500 Pressure hPa : 900 rack travel mm : 10.25 Tolerance mm : 4 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : 4 2.0 Check tolerance cm3/1000 strokes : 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0		
rack travel mm : 10.20 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 900 rack travel mm : 10.30 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - rack travel mm : 10.10 Tolerance mm : + 0.20 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 550 rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : 900 Aneroid pressure	Rated speed rpm rack travel mm	9.95
COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 900 rack travel mm : 10.30 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - rack travel mm : 10.10 Tolerance mm : + 0.20 MEASUREMENT Rated speed rpm : 550 Pressure hPa : 550 rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 Aneroid pressure hPa : 900	rack travel mm	: 10.20
Rated speed rpm : 500 Pressure hPa : 900 rack travel mm : 10.30 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - rack travel mm : 10.10 Tolerance mm : + 0.20 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 550 rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : -		
Pressure hPa : 900 rack travel mm : 10.30 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : - rack travel mm : 10.10 Tolerance mm : + 0.20 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 550 rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s : 9.0 Aneroid pressure hPa : -	SETTING	
Pressure hPa : - rack travel mm : 10.10 Tolerance mm : + 0.20 MEASUREMENT Rated speed rpm : 500 Pressure hPa : 550 rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : -	Pressure hPa rack travel mm	: 900 : 10.30
Rated speed rpm : 500 Pressure hPa : 550 rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000s trokes : 6.0 Check tolerance cm3/1000s : 9.0 Aneroid pressure hPa : -	Pressure hPa rack travel mm	: 10.10
Pressure hPa : 550 rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 Aneroid pressure hPa : -	MEASUREMENT	
rack travel mm : 10.25 Tolerance mm : + 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 Aneroid pressure hPa : -	Rated speed rpm	: 500
Aneroid pressure hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000s trokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 Aneroid pressure hPa : -	rack travel mm	: 10.25
hPa : 900 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 Aneroid pressure hPa : -	FUEL DELIVERY CHA	
<pre>cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0</pre> Aneroid pressure hPa : -	hPa Rated speed rpm	
cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : -	cm3/1000 strokes	: 123.0
cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : -	cm3/1000 strokes	: ← 2.0
Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : -	cm3/1000s.	: +- 5.0
Aneroid pressure hPa : -	Tolerance cm3/1000 strokes Check tolerance	
hPa : -	cm3/1000s.	: 9.0
•••		• -
		500

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: : +- : +-	115.5 1.0 3.0	
STARTING FUEL DEL	IVERY		
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: +-	100 20.50 1.00 177.0 10.0	
Check tolerance cm3/1000s.	: +-	13.0	
LOW IDLE Rated speed rpm	:	440	
Rack travel in mm Tolerance mm Del. quantity	: +-	5.25 0.10	
cm3/1000 strokes	:	24.5	
cm3/1000 strokes Check tolerance	: +-	2.0	
cm3/1000s.	: +-	4.5	
Spreed	•		
Spreed Tolerance cm3/1000 strokes	:	3.5	
Spreed Tolerance	:	3.5 5.5	

End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 08.01.98 Test oil : 180 4113

Combination No. : 0 402 034 701AA

Injection pump

Pump designation : PES4P120B120RS3379.

EP type number : 0 412 024 702

Governor

Governer design. : RQV475...1250PA1316K

Governer no. : 0

Cust. part No. : 3933365

Customer—spec. information Customer : CDC Motor : 4BTA-A Power KW : 86.4

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : ← 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : $\leftarrow 0.50$

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 10.50 Tolerance mm : + 0.15

M20

Del. quantity + cm3/1000 strokes : 126.5	
	CONTROL LEVER
Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 119.0
Check tolerance cm3/1000s. : +- 3.0	tolerance degree : +- 6.0 RATED SPEED
Spreed	rack travel mm : 9.20 Rated speed rpm : 1345
Tolerance cm3/1000 strokes : 8.0	Tolerance 1/min : +- 15 rack travel mm : 6.40
Check tolerance cm3/1000s. : 12.0	Rated speed rpm : 1390 Tolerance 1/min : + 5
Rated speed rpm : 475	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1475
+	nated speed (piii . 147)
Rack travel in mm : 5.70 + C.10	
Del. quantity	
cm3/1000 strokes : 26.5	LOW IDLE
cm3/1000 strokes : + 2.0	and the second
Check tolerance + cm3/1000S. : +- 5.0 +	control lever position degree : 73.0
Spreed	tolerance degree : + 6.0
Tolerance + cm3/1000 strokes : 4.0 + Check tolerance +	Control lever difference Grad : 46.0
cm3/1000s. : 8.0	tolerance degree : + 6.0
(D) CETTING OF INJECTION DIME	Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 400
	CRT mm min. :> 7.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Testing:
Rated speed rpm : 1250 +	Rated speed rpm : 475 rack travel mm : 5.70
hPa : 1200 +	Tolerance mm : +- 0.10
Del. quantity cm3/1000 strokes : 126.5 Tolerance	Rated speed rpm : 550
cm3/1000 strokes : + 1.0	
Check tolerance cm3/1000s. : + 3.0 + Spreed	TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 10.50
Tolerance	Tolerance mm : + 0.15
cm3/1000 strokes : 8.0 + Check tolerance	Rated speed rpm : 750
cm3/1000s. : 12.0	rack travel mm : 10.15 Tolerance mm : + 0.20

ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa

Rated speed rpm : 1250
Pressure hPa : rack travel mm : 9.45
Tolerance mm : + 0.20

1250

1250

MEASUREMENT

Rated speed rpm : 1250

Pressure hPa : 800
rack travel mm : 10.50
Tolerance mm : +- 0.20

Pressure hPa : 680 rack travel mm : 9.85 Tolerance mm : + 0.20

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 375

Check

speed 1/min : > 80 Check speed 1/min : < 385

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1200 hPa Rated speed rpm 750 Del. quantity cm3/1000 strokes : 118.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance 12.0 cm3/1000s.

Aneroid pressure
hPa : Rated speed rpm : 1250
Del. quantity
cm3/1000 strokes : 111.5
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 21.00 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 176.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0

LOW IDLE

cm3/1000s.

Rated speed rpm : 475 5.70 Rack travel in mm : Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 26.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. 5.0 : +-Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance

End of test specification sheet

8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09.01.98 : ISO 4113

Combination No. : 0 402 076 817

Injection pump

Pump designation : PES6P120A720RS3367 ...

EP type number : 0 412 026 788

Governor

Governer design. : RSV525...1000P2A640

: -1

Governer no.

: 0 421 833 604

Cust. part No. : RE71286

Customer-spec. information Customer : DEERE : 6081HT001 Motor Power KW : 186.D

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temo. °C Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter:

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-180-240

: -300

Start of delivery mark

*NW after s.o.d. : 7.50 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 1000

		T	
Rack travel in mma Tolerance mma	: 13.00 : ← 0.05	FULL LOAD DELIVER	
Del. quantity cm3/1000 strokes	: 176.0	Aneroid pressure hPa	: 1400
Tolerance cm3/1000 strokes	: + 1.0	Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	
Check tolerance cm3/1000s.	: + 3.0	Check tolerance cm3/1000s.	: ← 3.0
Spreed		Tolerance cm3/1000 strokes	: 4.0
Tolerance cm3/1000 strokes	: 4.0	Check tolerance cm3/1000s.	: 6.5
Check tolerance cm3/1000s.	: 6.5	CONTROL LEVER	
Rated speed rpm	: 525	control lever position degree	
Rack travel in mma Tolerance mma Del. quantity	: +- C.10	tolerance degree RATED SPEED rack travel mm	: 12.00
cm3/1000 strokes Tolerance cm3/1000 strokes		Rated speed rpm Tolerance 1/min	: 1070 : + 5
Check tolerance cm3/1000S. Spreed Tolerance	: +- 4.5	rack travel mm Rated speed rpm Tolerance 1/min	: 1115
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0 : 8.0	rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 1200
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	rack travel mm Rated speed rpm Tolerance 1/min	
GUIDE SLEEVE POSIT	TION	LOW IDLE	
control lever position degree Rated speed rpm		control lever position degree tolerance degree	
Rack travel in mm Tolerance mm		Setting point w/o	out bumper sp
governor spring pre-tension click setting x	: 3.00	Rated speed rpm rack travel mm Tolerance mm	: 525 : 4.60 : + 0.10

: 1000
: 1400
: 176.0
: + 1.0
: ← 3.0
: 4.0
: 6.5
: 89.0
: +- 4.0
: 12.00
: 1070 : + 5
: 4.00
: 1115 : ← 5
: 0.85
: ← 0.55 : 1200
: 4.00
: 1115 : + 15
: 72.0 : ← 4.0
out bumper spring
: 525 : 4.60

FULL LOAD STOP

Rated speed rpm : 100 : > 19.00 CRT me min. Testing: 525 Rated speed rpm rack travel mm 5.10 : **←** 0.10 Tolerance mm TORQUE CONTROL 1000 Rated speed rpm : rack travel mma : 13.00 : +- 0.05 Tolerance mm Rated speed rpm 700 13.80 rack travel mm : + 0.10Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm : Pressure hPa 1400 500 Rated speed rom Pressure hPa 12.25 rack travel mm : + 0.10 Tolerance min MEASUREMENT Rated speed rpm : 500 975 Pressure hPa 13.40 rack travel mm : **+** 0.20 Tolerance mm Pressure hPa 830 12.70 rack travel mm Tolerance mm : **←** 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure 1400 hPa 700 Rated speed rpm Del. quantity cm3/1000 strokes : 197.5 Tolerance

Check tolerance : +- 4.0 cm3/1000s.Aneroid pressure Rated speed rpm 500 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.0 STARTING FUEL DELIVERY Rated speed rpm 100 20,50 rack travel mm : + 0.50Tolerance mm Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Rated speed rpm : 525 5.10 Rack travel in mm : Tolerance mm : + 0.10Del. quantity cm3/1000 strokes : 26.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

End of test specification sheet

cm3/1000 strokes : \leftarrow 2.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.12.97 Test oil : ISO 4113

Combination No. : F 002 A0Z 079

Injection pump

Pump designation : PES4A95D12ORS2941 . EP type number : F 002 A90 024

Governor

Governer design. : RQV475...1250AB1329R

Governer no. : F 002 A30 004

Cust. part No. : 3933691

Customer-spec. information Customer : CDC Motor : 4BNA Power KW : 59.6

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : +0 : + 2.0 Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar : **←** 1.5 Tolerance bar

Test Lines : 1 680 750 01+

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm 2.85 : ÷ 0.05 Tolerance mm Check tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing : +- 0.50

Tolerance

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50 Tolerance Check tolerance "NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.00 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 87.0

Tolerance + 1.0 + 1.0	guide sleeve
	travel mm : 11.50 Tolerance mm : +- 0.50
Check tolerance cm3/1000s. : + 3.0	FILL LOAD DELEVEDY AT MULLICAD OTOD
Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity
Check tolerance cm3/1000s. : 6.0	cm3/1000 strokes : 87.0 Tolerance cm3/1000 strokes : + 1.0
	Check tolerance cm3/1000s. : +- 3.0
Rated speed rpm : 475	Spreed Tolerance
Rack travel in mm: 5.35 Tolerance mm: + 0.10	cm3/1000 strokes : 3.5 Check tolerance
Del. quantity cm3/1000 strokes : 15.0	cm3/1000s. : 6.0
Tolerance cm3/1000 strokes : + 2.0	
Check tolerance cm3/1000s. : +- 4.5	CONTROL LEVER
Spreed Tolerance	control lever position degree : 100.0
cm3/1000 strokes : 3.5 Check tolerance	tolerance degree : +- 6.0
cm3/1000s. : 5.5	RATED SPEED rack travel mm : 9.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1300 Tolerance 1/min : +- 15
WITH GOVERNOR	rack travel mm : 4.00
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1390 Tolerance 1/min : +- 5
Rated speed rpm : 1310 + guide sleeve +	rack travel mm : 0.50 Tolerance mm : +- 0.50
travel mm : 8.60 + O.15	Rated speed rpm : 1475
Rated speed rpm : 475	
guide sleeve travel mm : 1.90	LOW IDLE
Tolerance mm : + 0.20	
Rated speed rpm : 930 + guide sleeve	control lever position degree : 70.0
travel mm : 5.25 Tolerance mm : + 0.25	tolerance de ree : + 6.0
Rated speed rpm : 630	Control lever difference Grad:: 30.0 tolerance degree: +- 6.0
guide sleeve travel mm : 3.30 Tolerance mm : +- 0.25	tolerance degree : + 6.0 Setting point w/out bumper spring
Rated speed rpm : 1630	Rated speed rpm : 400
The speed open of the second	

CRT mm min. :> 7.00

Testina:

475 Rated speed rpm : : 5.35 rack travel mm : + 0.10 Tolerance mm

550 Rated speed rpm

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 10.00 : ← 0.05 Tolerance mm

Start interlock

Rated speed rpm :> 100 : < 385 Rated speed rpm

Check

speed 1/min 80 : > Check

speed 1/min 395 : <

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 : **←** 0.50 Tolerance mm Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

: + 15.0 cm3/1000s.

LOW IDLE

Rated speed rpm : 475

5.35 Rack travel in mm: Tolerance mm : + 0.10

Del. quantity

15.0 cm3/1000 strokes :

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s.: +--

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

5.5 cm3/1000s.

End of test specification sheet

M28

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 13.01.98 : ISO 4113

Combination No. : 0 400 845 050

Injection pump

Pump designation : PES5A95D410RS2417 EP type number : 0 410 895 993

Governor

Governer design. : RQ750AB1240L Governer no. : 0 420 200 110

Cust. part No. :

Customer-spec. information : KHD Customer

Motor : F5L413FR

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

173.5 bar : **←** 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter :

x inside diameter: 2.0

NO1

x length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : Tolerance bar : + 1.0 Firing order : 1-3-5-4-2 Phasing : 0-72-144-216-288 BASIC SETTING Rated speed rpm : 700 Rack travel in mm : 10.45 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 102.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance : +- 3.0 cm3/1000s. Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance nm3/1000s. 6.0 : Rated speed rpm : 250

Del. quantity

cm3/1000 strokes : 11.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 5.5

Spreed

cm3/1000 strokes Check tolerance cm3/1000s.	: 3.5 : 5.5
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	: 700
hPa	: -
Del. quantity cm3/1000 strokes	: 102.0
Tolerance	. 102.0
cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	: + 3.0
Spreed	
Tolerance	. 7 E
cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 6.0
	. 0.0
RATED SPEED	
rack travel mm	: 9.40
Rated speed rpm	: 753
Tolerance 1/min	: ← 3
rack travel mm	: 3.70
Rated speed rpm	
Tolerance 1/min	: 783 : ← 5
	
TORQUE CONTROL	. 700
Rated speed rpm rack travel mm	: 700 : 10.45
rack travel mm Tolerance mm	: 10.45 : ← 0.05
. — 601 GR 100 MM	V - V + W
Rated speed rpm	: 500
rack travel mm	: 10.50
Tolerance mm	: + 0.10
Start interlock	
Rated eneed nom	: > 100
Rated speed rpm Rated speed rpm	: < 640
sou upoou (pn	ψ · • • • • • • • • • • • • • • • • • •
Check	
speed 1/min	: > 80
speed 1/min	: > 80
vancer.	

Check speed 1/min	: <	660	
STARTING FUEL DEL	IVERY	···	
Rated speed rpm rack travel mm Tolerance mm Del. quantity	: : +-	100 14.20 0.20	
cm3/1000 strokes Tolerance		125.0	
cm3/1000 strokes Check tolerance	: +-	5.0	
cm3/1000s.	; +-	8.0	
LOW IDLE	·		
Rated speed rpm Del. quantity	:	250	
cm3/1000 strokes Tolerance	:	11.0	
cm3/1000 strokes Check tolerance	: +	3.0	
cm3/1000s. Spreed Tolerance	: +-	5.5	
cm3/1000 strokes Check tolerance	:	3.5	
cm3/1000s.	:	5.5	
		· · · · · · · · · · · · · · · · · · ·	

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 08.01.98 : ISO 4113

Combination No. : 0 400 876 404

Injection pump

Pump designation : PES6A95D410RS2835 EP type number : 0 410 896 896

Governor

Governer design. : RSV650...1050A8C2263

Governer no.

: 0 420 232 583

Cust. part No. : 87 800 648

Customer-spec. information

Customer : FNH-GEOTECH

: 7.5 L Motor Power KW : 149.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 2.60 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 750

Rack travel in mm: 14.50 Tolerance mm: \leftarrow 0.10

Del. quantity cm3/1000 strokes :

151.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: +- 3.0

NO3

Spreed	+ Tolerance
opi eeu	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : 8.0
	1 0.00
Check tolerance	
cm3/1000s. : 8.0	
	+ CONTROL LEVER
	+
	+ control lever
Rated speed rpm : 650	position degree : 92.0
	+ tolerance degree : +- 4.0
Rack travel in mm : 5.40	+
Tolerance mm : + 0.10	†
Del. quantity	+ ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : 23.5	†
Tolerance	Rated speed rpm : 1087
cm3/1000 strokes : + 2.0	rack travel mm : 12.10
Check tolerance cm3/1000s. : + 4.5	Pated speed run : 4447
cm3/1000s. : +- 4.5 Spreed	+ Rated speed rpm : 1117 + Tolerance 1/min : + 5
spr ee d Tolerance	Tolerance 1/min : + 5 rack travel mm : 4.00
cm3/1000 strokes : 5.5	I lack travet min . 4.00
Check tolerance	rack travel mm : 0.85
cm3/1000s. : 9.0	Tolerance ma : + 0.55
1,000	Rated speed rpm : 1225
	The same of the sa
(B) SETTING OF INJECTION PUMP	1
WITH GOVERNOR	Rated speed rpm : 1088
	Rated speed rpm : 1088 rack travel mm : 12.10
	+
	+ Rated speed rpm : 1118
GUIDE SLEEVE POSITION	+ Tolerance 1/min : + 5
	+ rack travel mm : 4.00
	†
control lever	
* . * . *	rack travel mm : 0.85
position degree : - 3	+ Tolerance mm : + 0.55
position degree : - 3 Rented speed rpm : 300	
Rerted speed rpm : 300	+ Tolerance mm : + 0.55
Rated speed rpm : 300 Rack travel in mm : 0.50	Tolerance mm : + 0.55 Rated speed rpm : 1225
Rerted speed rpm : 300	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20	Tolerance mm : + 0.55 Rated speed rpm : 1225
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 750 Aneroid pressure hPa: 1200	Tolerance mm : + 0.55 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 750 Aneroid pressure hPa: 1200 Del. quantity	Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1090
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 151.5	Tolerance mm : + 0.55 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 750 Aneroid pressure hPa: 1200 Del. quantity cm3/1000 strokes: 151.5 Tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1090 rack travel mm : 1090 rack travel mm : 12.10
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 750 Aneroid pressure hPa: 1200 Del. quantity cm3/1000 strokes: 151.5 Tolerance cm3/1000 strokes: + 1.0	Tolerance mm : + 0.55 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1090 rack travel mm : 12.10 Rated speed rpm : 1120
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 151.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1090 rack travel mm : 12.10 Rated speed rpm : 1120 Tolerance 1/min : + 5
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 151.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	Tolerance mm : + 0.55 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1090 rack travel mm : 12.10 Rated speed rpm : 1120
Rated speed rpm : 300 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 750 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 151.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Tolerance mm : + 0.55 Rated speed rpm : 1089 rack travel mm : 12.10 Rated speed rpm : 1119 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1225 Rated speed rpm : 1090 rack travel mm : 12.10 Rated speed rpm : 1120 Tolerance 1/min : + 5

Tolerance mm		†
Rated speed rpm	: 1225	+ Rated speed rpm : 1050
		rack travel mm : 12.80
	4000	+ Tolerance mm : + 0.10
Rated speed rpm	: 1091 : 12.10	†
rack travel mm	: 12.10	+ Rated speed rpm : 1050
		+ rack travel mm : 13.10 + Tolerance mm : + 0.10
Rated speed rpm	: 1121	+ Tolerance mm : + 0.10
Tolerance 1/min		+
rack travel mm	: 4.00	+ Rated speed rpm : 975
		rack travel mm : 13.65 Tolerance mm : + 0.15
rack travel mm		+ Tolerance mm : ← 0.15
Tolerance mm	: + 0.55	†
Rated speed rpm	: 1225	+
		+ ANEROID/ALTITUDE
		+ COMPENSATOR TEST
Rated speed rpm rack travel mm	: 1092	†
rack travel mm	: 12.10	+
		+ SETTING
Rated speed rpm		+
Tolerance 1/min		+ Rated speed rpm : 500
rack travel mm	: 4.00	Pressure hPa : 1200
		rack travel mm : 14.50
rack travel mm		+ Tolerance mm : ← 0.10
Tolerance mm Rated speed rpm	: ← 0.55	+
Rated speed rpm	: 1225	+ Rated speed rpm : 500
		+ Pressure hPa : -
		Pressure hPa : - rack travel mm : 8.90 Tolerance mm : + 0.10
LOW IDLE		+ Tolerance mm : + 0.10
		+
		+ MEASUREMENT
control lever		}
position degree	: 74.0	+ Rated speed rpm : 500
tolerance degree	: +- 4.0	+
_		+ Pressure hPa : 325
Setting point w/	out bumper spring	Pressure hPa : 325 rack travel mm : 10.70 Tolerance mm : + 0.20
		+ Tolerance mm : + 0.20
Rated speed rpm	: 650	}
rack travel mm	: 4.90	+ Pressure hPa : 550
Tolerance mm	: ← 0.10	rack travel mm : 13.55 Tolerance mm : + 0.05
	•	Tolerance mm : + 0.05
Rated speed rpm	: 100	1
		1
CRT mm min.	: > 19.50	
		FUEL DELIVERY CHARACTERISTICS
Testing:		1
Rated speed rpm	: 650	Aneroid pressure
rack travel man	5.40	
rack travel mm Tolerance mm	: + 0.10	+ hPa : - Rated speed rpm : 500
10001 41100 1111		+ Del. quantity
rack travel mm	: 2.00	+ cm3/1000 strokes : 77.0
Rated speed rom	: 700	Tolerance
Rated speed rpm Tolerance 1/min	: +- 30	+ cm3/1000 strokes : + 2.0
		+ Check tolerance
		+ Check tolerance + cm3/1000s. : + 4.5
TORQUE CONTROL		1 10000
Rated speed rpm	• 750	1
rack travel mm	• 14 50	
Tolerance mm	· + 0.10	STARTING FUEL DELIVERY
I O CEI GI NEE INT	0.10	1 OLUMITIO LOCK METACUL

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 200.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 13.0

LOW IDLE

Rated speed rpm : 650 Rack travel in mm: 5.40 Tolerance am : + 0.10 Del. quantity cm3/1000 strokes : 23.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s.9.0

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 09.01.98 Test oil : ISO 4113

Combination No. : F 002 A0Z 047

Injection pump

Pump designation : PES6A100D320/3RS3513

EP type number : F 002 A10 002

Governor

Governer design. : RSV450...750A4C926R

Governer no. : F 002 A20 234

Cust. part No. : 3931254

Customer—spec. information Customer : CDC Motor : 6CT 8.3 Power KW : 133.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40Tolerance °C : \leftarrow 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +- 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.25 Tolerance : + 0.10

Check

tolerance "NW : + 0.29

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 750

Rack travel in mm : 13.15 Tolerance mm : + 0.05

NO7

 	Aneroid pressure
Del. quantity	hPa : -
cm3/1000 strokes : 159.0	Del. quantity
1	cm3/1000 strokes : 159.0
Tolerance	Tolerance
cm3/1000 strokes : +- 1.0	cm3/1000 strokes : +- 1.0
T	
T	Check tolerance
Check tolerance +	cm3/1000s. : +- 3.0
cm3/1000s. : +- 3.0 +	Spreed
+	Tolerance
Spreed	cm3/1000 strokes : 4.0
1	Check tolerance
Tolerance	cm3/1000s. : 6.5
cm3/1000 strokes : 4.0	CIID7 10000: . 0.5
CHEST LOUD SCHOKES . 4.0	
Check tolerance +	
cm3/1000s. : 6.5 +	CONTROL LEVER
<u> </u>	
	control lever
1	position degree : 94.0
Rated speed rpm : 450	tolerance degree : + 4.0
Tates speed (pin) . 450	coterance degree 4.0
Onch through in To 5 50	DATEN COPEN
Rack travel in mm: 5.50	RATED SPEED
Tolerance mm : + 0.10 +	rack travel mm : 12.10
Del. quantity +	Rated speed rpm : 810
cm3/1000 strokes : 22.5	Tolerance 1/min : + 5
Tolerance	TO COT GITTO TO MILIT TO S
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance +	Rated speed rpm : 840
cm3/1000s. : + 4.5	Tolerance 1/min : +- 5
Spreed +	
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 6.0	Tolerance mm : +- 0.55
Check tolerance +	Rated speed rpm : 925
cm3/1000s. : 8.0 +	
+	rack travel mm : 4.00
+	Rated speed rpm : 840
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : + 15
WITH GOVERNOR	Ocerance mann . The 15
MITH GOVERNOR +	
†	
+	
	
GUIDE SLEEVE POSITION +	LOW IDLE
T	
T.	
control lever +	control lever
position degree : FREE +	position degree : 75.0
Rated speed rpm : 800 +	tolerance degree : +- 4.0
Rack travel in mm: 0.50	Control lever difference
Tolerance mm : + 0.20 +	Grad : 19.0
	tolonopoo dograpo + +- 6 0
†	tolerance degree : + 6.0
governor spring	toterance degree . + 0.0
	•
pre-tension +	Setting point w/out bumper spring
	Setting point w/out bumper spring
pre-tension +	Setting point w/out bumper spring Rated speed rpm : 450
pre-tension click setting x : 2.75	Setting point w/out bumper spring Rated speed rpm : 450 rack travel mm : 5.00
pre-tension +	Setting point w/out bumper spring Rated speed rpm : 450
pre-tension click setting x : 2.75	Setting point w/out bumper spring Rated speed rpm : 450 rack travel mm : 5.00
pre-tension click setting x : 2.75	Setting point w/out bumper spring Rated speed rpm : 450 rack travel mm : 5.00

NO8

CRT mm min. : > 19.00

Testing:

Rated speed rpm 450 rack travel mm 5.50 : + 0.10 Tolerance mm

rack travel mm 2.00 Rated speed rpm Tolerance 1/min

TORQUE CONTROL

Rated speed rpm : 750 rack travel mm : 13.15 Tolerance mm : + 0.05

STARTING FUEL DELIVERY

Rated speed rpm 100 20.50 rack travel mm : ← 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 140.5

Tolerance

cia3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : ← 15.0

LOW IDLE

Rated speed rpm : 450

5.50 Rack travel in mm : Tolerance mm 0.10

Del. quantity cm3/1000 strokes : 22.5

Tolerance

cm3/1000 strokes : ÷ 2.0

Check tolerance

cm3/1000s. 4.5

Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 8.0 End of test specification sheet

N₀9

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08.01.98 : ISO 4113

Combination No. : F 002 A0Z 094

Injection pump

Pump designation : PES4A9UD321RS2829

EP type number : 9 410 037 189

Governor

Governer design. : RSV325...1750A0C968R

Governer no. : F 002 A20 024

Cust. part No. :

Customer-spec. information

Customer : EICHER

Motor

: 4D31C EXPORT

Power KW

: 69.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 9 411 037 403

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

har

173.5

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2 x length mm : 600 2.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1- 3-4-2

: 0-90-270-360 : +- 0.50 Phasing

Phasing Tolerance

Check

tolerance "NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1750

Rack travel in mm: 8.60

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 47.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s.

: **←** 2.5

Spreed

Tolerance cm3/1000 strokes : 3.0	Check tolerance cm3/1000s. : 7.0
Check tolerance + cm3/1000s. : 7.0	
	CONTROL LEVER
Rated speed rpm : 325	control lever position degree : 54.0
Rack travel in mm: 7.00 Tolerance mm: : + 0.10 Del. quantity cm3/1000 strokes: 10.5 Tolerance	control lever position degree : 104.0 tolerance degree : +- 4.0 RATED SPEED
cm3/1000 strokes : + 2.0 Check tolerance	rack travel mm : 7.60 Rated speed rpm : 1845
cm3/1000s. : + 4.0 + 5preed	Tolerance 1/min : +- 5
Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.0	rack travel mm : 4.00 Rated speed rpm : 1900 Tolerance 1/min : +- 15
(B) SETTING OF INJECTION PUMP	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 2100
WITH GOVERNOR	rack travel mm : 4.00 Rated speed rpm : 1940
GUIDE SLEEVE POSITION	Tolerance 1/min : +- 15
control lever position degree : FREE Rated speed rpm : 800	LOW IDLE
Rack travel in mm: 0.50 Tolerance mm: :+ 0.20 governor spring	control lever position degree : 73.0 tolerance degree : +- 4.0
pre-tension +	
	control lever
click setting x : 4.75	control lever position degree : 23.0
	position degree : 23.0 Setting point w/out bumper spring
FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 23.0 Setting point w/out bumper spring Rated speed rpm : 325
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1750 Aneroid pressure	position degree : 23.0 Setting point w/out bumper spring
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1750 Aneroid pressure hPa : - Del. quantity	position degree : 23.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 6.00
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1750 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.5 Tolerance	position degree : 23.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 6.00 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1750 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.5 Tolerance cm3/1000 strokes : + 0.5	position degree : 23.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 6.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 16.00
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1750 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5	position degree : 23.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 6.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 16.00 Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1750 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5 Spreed	position degree : 23.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 6.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 16.00 Testing: Rated speed rpm : 325
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1750 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 47.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5	position degree : 23.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 6.00 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 16.00 Testing:

rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 680 : + 30
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1750 : 8.60 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 8.70 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 750 : 8.85 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 1500 : 8.60 : + 0.05
	RACTERISTICS
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1100
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1100 : 49.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 1100 : 49.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1100 : 49.5 : + 1.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 1100 : 49.5 : + 1.5 : + 3.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1100 : 49.5 : + 1.5 : + 3.5 : 4.0 : 8.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa rack travel mm Tolerance mm	: 1100 : 49.5 : + 1.5 : + 3.5 : 4.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa rack travel mm Tolerance cm3/1000 strokes cm3/1000 strokes	: 1100 : 49.5 : + 1.5 : + 3.5 : 4.0 : 8.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa rack travel mm Tolerance mm Tolerance	: 1100 : 49.5 : + 1.5 : + 3.5 : 4.0 : 8.0

Rated speed rpm	:	100
rack travel mm Tolerance mm	: +-	14.00
Tolerance	• •	0.50
cm3/1000 strokes	: +-	7.5
Check tolerance cm3/1000s.	: +-	10.0
LOW IDLE	···	
ated speed rpm	:	325
Rack travel in mm	:	7.00
Tolerance mm	: +-	0.10
Del. quantity cm3/1000 strokes	:	10.5
Tolerance	·	
cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000s.	: +-	4.0
Spreed Tolerance		
cm3/1000 strokes	:	4.5
		7.0
Check tolerance cm3/1000S.	:	

End of test specification sheet

cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 14.11.97

Test oil

: ISO 4113

Combination No.

: 0 401 846 843

Injection pump

Pump designation : PE6P120A720RS3069

EP type number

: 0 411 826 712

Governor

Governer design. : RQV300...1000PA501

Governer no.

: 0 421 813 609

Cust. part No. :

Customer-spec. information

Customer

: IVECO-FIAT

Motor

: 8210.22.371

TEST BENCH REQUIREMENTS

Inlet line

: 4.2

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar :

1.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 019

Opening pressure bar

208.5

Tolerance bar

: **←** 1.5

Test lines

: 1 680 750 075

Outside diameter : 8.0

3.0

x inside diameter :

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm : 3.55 : + 0.05Tolerance mm

Check

: +- 0.10 tolerance mma

Rack travel in mm : 10.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.55

Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 206.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.

: +- 4.0

Spreed

N13

Tolerance + cm3/1000 strokes : 5.0	Aneroid pressure hPa : 700
Check tolerance cm3/1000s. : 9.0	Del. quantity cm3/1000 strokes : 206.0 Tolerance
	cm3/1000 strokes : + 1.0 Check tolerance
Ratted speed rpm : 300	cm3/1000s. : + 4.0 Spreed
Rack travel in mm: 6.20 Tolerance mm : + 0.10	Tolerance cm3/1000 strokes : 5.0 Check tolerance
Del. quantity cm3/1000 strokes : 20.0	cm3/1000s. : 9.0
Tolerance cm3/1000 strokes : + 3.0 +	
Check tolerance cm3/1000s. : + 6.0	CONTROL LEVER
Spreed Tolerance cm3/1000 strokes : 8.0	<pre>control lever position degree : 120.0 tolerance degree : + 4.0</pre>
Check tolerance cm3/1000s. : 12.0	RATED SPEED
	rack travel mm : 11.50 Rated speed rpm : 1045
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance 1/min : + 5 Check speed 1/min : + 10
GUIDE SLEEVE TRAVEL	rack travel mm : 4.00
Rated speed rpm : 1000	Rated speed rpm : 1145 Tolerance 1/min : + 15 Check
guide sleeve travel mm : 8.10 + Tolerance mm : + 0.15 +	speed 1/min : +- 20
Rated speed rpm : 325	rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve travel mm : 1.70 Tolerance mm : + 0.20	Rated speed rpm : 1250
Rated speed rpm : 450	
guide sleeve + travel mm : 3.10 + Tolerance mm : + 0.20 +	LOW IDLE
Rated speed rpm : 800	control lever position degree : 67.0
guide sleeve travel mm : 5.90	tolerance degree : + 4.0
Tolerance mm : ← 0.20 + Rated speed rpm : 1300 +	Setting point w/out bumper spring Rated speed rpm : 100
guide sleeve travel mm : 11.50	CRT mm min. :> 7.70
Tolerance mm : + 0.50	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 300
Rated speed rpm : 1000	rack travel mm : 6.20 Tolerance mm : + 0.10

Rated speed rpm	: 370
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.55 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.60 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700
Rated speed rpm Fressure hPa rack travel mm Tolerance mm	: 500 : - : 9.80 : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 230 : 10.85 : ← 0.15
Pressure hPa rack travel mm Tolerance mm	: 280 : 11.85 : ← 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	
Rated speed rpm	500
Del. quantity cm3/1000 strokes	: 132.0
Tolerance cm3/1000 strokes	: ← 1.0
Check tolerance	: + 4.0

Rated speed rpm	:		100	
Del. quantity cm3/1000 strokes	:		200.0	
Tolerance cm3/1000 strokes	:	+-	15.0	
Check tolerance cm3/1000s.	:	+	19.0	
LOW IDLE				
Rated speed rpm	:		300	
Rack travel in mm	:		6.20	
Tolerance mm Del. quantity	:	+	0.10	
cm3/1000 strokes	:		20.0	
Tolerance			7.0	
cm3/1000 strokes Check tolerance	•	+-	3.0	
cm3/1000s.	:	+-	6.0	
Spreed				
Tolerance cm3/1000 strokes	:		8.0	
Check tolerance	•		3.0	
cm3/1000s.	:		12.0	

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 17.11.97 Test oil : ISO 4113

Combination No. : 0 401 848 828

Injection pump

Pump designation : PE8P120A520/4L\$3850.

EP type number : 0 411 828 723

Governor

Governer design. : RQ300/900PA1230 Governer no. : 0 421 801 792

Cust. part No.

Customer—spec. information Customer : DHI Motor : D2848LE

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 4.05
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : \leftarrow 0.50

Check

tolerance "NW : + 0.75

Start of delivery mark

Tolerance : + 0.50 Check tolerance *NW : + 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 850

Rack travel in mm : 12.20
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 215.0

Tolerance	t 10	guide steeve
cm3/1000 strokes :	+ 1.0	travel mm : 6.00 Tolerance mm : +- 0.10
Check tolerance cm3/1000s. :	+- 4.0	Rated speed rpm : 1050
Conned		guide sleeve
Spreed	Ī	travel mm : 11.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes :	6.0	
Check tolerance		GUIDE SLEEVE POSITION
	10.0	
		control lever
	†	position degree : 109
Detail enough mm	300	Rated speed rpm : 600
Rated speed rpm :	³⁰⁰ I	Rack travel in mm : 20.00
Rack travel in mm :	7,40	Tolerance mm : + 0.80
	+ 0.10	
Del. quantity	,	
cm3/1000 strokes :	42.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes :	+ 30 I	Rated speed rpm : 850
Check tolerance	1	Aneroid pressure
	+ 6.0	hPa : -
Spreed	+	Del. quantity
Tolerance cm3/1000 strokes :	6.0	cm3/1000 strokes : 215.0 Tolerance
Check tolerance	•.• I	cm3/1000 strokes : +- 1.0
cm3/1000s. :	10.0	Check tolerance
	+	cm3/1000s. : + 4.0
(m) next the or this	APPENIL NUMBER	Spreed
(B) SETTING OF INJE	CITON POMP	Tolerance cm3/1000 strokes : 6.0
WITH GOVERNOON	- ↓	Check tolerance
		cm3/1000s. : 10.0
GUIDE SLEEVE TRAVEL	‡	
Rated speed rpm :	932	CONTROL I FUED
guide sleeve travel mm :	6.37	CONTROL LEVER
	+ 0.10	control lever
	+	position degree : 32.0
Rated speed rpm :	300 +	tolerance degree : +- 4.0
guide sleeve travel mm :	1.44	control Lever
	+ 0.10	position degree : 94.0
	+	tolerance degree : + 4.0
Rated speed rpm :	880 +	
guide sleeve	4.00	RATED SPEED rack travel mm : 11.20
travel mm : Tolerance mm :	6.00	rack travel mm : 11.20 Rated speed rpm : 905
TO COLOR INCOME	+	Tolerance 1/min : + 5
Rated speed rpm :	433	
guide sleeve	+	rack travel mm : 4.00
travel mm : Tolerance mm :	4.94 + 0.10	Rated speed rpm : 950 Tolerance 1/min : +- 15
TOTETHERE MIN	1	TO CET GIFTE TO THE TOTAL TOTAL TO THE TOTAL
Rated speed rpm :	510	rack travel mm : 0.50
N17		

Tolerance mm Rated speed rpm	: +- 0.50 : 1100
LOW IDLE	
control lever position degree tolerance degree	: 75.0 : + 4.0
control lever position degree tolerænce degree	: 13.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 9.80
Testing:	
Rated speed rpm rack travel mma Tolerance mm	: 300 : 7.40 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 420 : + 20
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 850 : 12.20 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 650 : 12.20 : + 0.10
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 220
Check speed 1/min Check	: > 80
speed 1/min	: < 240

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
STARTING FUEL DEL	IVERY
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm	: 300
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +- 0.10
End of test speci	fication sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.11.97 Edition Test oil : ISO 4113

Combination No. : 0 401 849 715

Injection purp

Pump designation : PE10P120A520/4LS3830

EP type number : 0 411 829 704

Governor

Governer design. : RQV250...1150PA668

: -7

Governer no. : 0 421 813 481

Cust. part No. :

Customer—spec. information Customer : MAN : D2840LE Motor Power KW : 463.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 067

Outside diameter : 6.0

x inside diameter : 1.5 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.25
Tolerance mm : + 0.05 Check tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : \leftarrow 1.50

Firing order : 10-9-4- 1- 8 : - 7- 6- 3- 5 : - 2

: 0-45-72-117-144 Phasing

: -189-216-261-288

: --333

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 12.25 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 206.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

M19

Spreed	Del. quantity cm3/1000 strokes : 206.0
Tolerance cm3/1000 strokes : 5.0	Tolerance cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s. 9.0	Check tolerance cm3/1000s. : +- 4.0
cm3/1000s. : 9.0	Spreed Tolerance cm3/1000 strokes : 5.0
+	Check tolerance
Rated speed rpm : 250	cm3/1000s. : 9.0
Rack travel in mm: 7.10	
Tolerance mm : + 0.10	CONTROL I SUED
Del. quantity to the cm3/1000 strokes : 20.0	CONTROL LEVER
Tolerance	control lever
cm3/1000 strokes : + 3.0	position degree : 122.0
Check tolerance	tolerance degree : + 4.0
cm3/1000s. : + 6.0	
Spreed	RATED SPEED rack travel mm : 11.20
Tolerance tom3/1000 strokes: 8.0	rack travel mm : 11.20 Rated speed rpm : 1195
Check tolerance	Tolerance 1/min : +- 5
cm3/1000s. : 12.0	
+	rack travel mm : 4.00
+	Rated speed rpm : 1330
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : + 15
WITH GOVERNOR	rack travel mm : 0.50
	Tolerance mm : + 0.50
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1450
Rated speed rpm : 1215 + guide sleeve +	
travel mm : 9.00	
Tolerance mm : + 0.15	LOW IDLE
Rated speed rpm : 250	and the state of t
guide sleeve travel mm : 1.05	control lever position degree : 68.0
Tolerance me : +- 0.20	tolerance degree : +- 4.0
Rated speed rpm : 610	
guide sleeve	Setting point w/out bumper spring
guide sleeve travel mm : 5.50	Setting point w/out bumper spring Rated speed rpm : 100
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25	
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590	Rated speed rpm : 100 CRT mm min. : > 8.60
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve	Rated speed rpm : 100
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve travel mm : 11.50	Rated speed rpm : 100 CRT mm min. :> 8.60 Testing:
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve	Rated speed rpm : 100 CRT mm min. :> 8.60 Testing: Rated speed rpm : 250
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve travel mm : 11.50	Rated speed rpm : 100 CRT mm min. :> 8.60 Testing: Rated speed rpm : 250 rack travel mm : 7.10
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve travel mm : 11.50	Rated speed rpm : 100 CRT mm min. :> 8.60 Testing: Rated speed rpm : 250 rack travel mm : 7.10
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150	Rated speed rpm : 100 CRT mm min. :> 8.60 Testing: Rated speed rpm : 250 rack travel mm : 7.10 Tolerance mm : + 0.10 TORQUE CONTROL
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure	Rated speed rpm : 100 CRT mm min. :> 8.60 Testing: Rated speed rpm : 250 rack travel mm : 7.10 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1150
guide sleeve travel mm : 5.50 Tolerance mm : + 0.25 Rated speed rpm : 1590 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150	Rated speed rpm : 100 CRT mm min. :> 8.60 Testing: Rated speed rpm : 250 rack travel mm : 7.10 Tolerance mm : + 0.10 TORQUE CONTROL

Start interlock

Rated speed rpm :> 100 Rated speed rpm :< 200

Check speed 1/min : > 80 Check

speed 1/min : < 220

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity

cm3/1000 strokes : 200.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : \leftarrow 14.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mm: 7.10
Tolerance mm: : +- 0.10
Del. quantity

cm3/1000 strokes : 20.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 6.0 Spreed

Tolerance

Totel ance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 17,11.97

Test oil

: ISO 4113

Combination No. : 0 402 044 700

Injection pump

Pump designation : PES4P110A320RS3350 .

EP type number : 0 412 014 700

Governor

Governer design. : RQV350...1400PA1221K

Governer no. : 0 421 815 472

Cust. part No. : 16700-D8703 / M

: -2004

Customer-spec. information

Customer : NMI

Motor

: B4.40 EURO II

Power KW : 101.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar :

1.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar

Test Lines : 1 680 750 008

x inside diameter : 2.0 x length mm : 600

Outside diameter : 6.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerarice mm : +- 0.05

tolerance mm : + 0.10

Rack travel in mm: 20.50

Tolerance mm : \leftarrow 0.50

Firing order : 4-2-1-3

: 0-90-180-270 Phasing

Phasing Tolerance : ← 0.50

Check

tolerance °NW

: **←** 0.75

Start of delivery mark

*NW after s.o.d. : 180.00

Tolerance : +- 0.50

Check

tolerance 'NW : +- 0.75

Barrel no. : 4

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 15.40

Tolerance mm : ← 0.05

N22

Del. quantity cm3/1000 strokes	: 178.0	+ Tolerance mm : + 0.25
Tolerance		Rated speed rpm : 1730 guide sleeve
cm3/1000 strokes	· +- 1.0	travel ma : 13.50
CIRCY TODO SCI ONCS	• • • • • • • • • • • • • • • • • • • •	Tolerance mm : +- 0.50
Check tolerance		+
cm3/1000s.	: ← 3.0	
O		+ GUIDE STEENE BOSILION
Spreed		İ
Tolerance		I control lever
cm3/1000 strokes	: 5.0	position degree : -1
		+ Rated speed rpm : 1515
Check tolerance	0.0	†
cm3/1000s.	: 9.0	+ Rack travel in mm : 14.50 + Tolerance mm : + 1.30
		Toterance man . The 1.50
		+
Rated speed rpm	: 350	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm	e: 9.40	Rated speed rpm : 1300
Tolerance mm		+ Aneroid pressure
Del. quantity		+ hPa : 1500
cm3/1000 strokes	: 37.0	Del. quantity
Tolerance cm3/1000 strokes	• + 25	+ cm3/1000 strokes : 178.0 + Tolerance
Check tolerance		cm3/1000 strokes : + 1.0
cm3/1000s.	: ← 5.0	+ Check tolerance
Spreed		+ cm3/1000s. : +- 3.0
Tolerance		Spreed
cm3/1000 strokes Check tolerance	: 6.0	+ Tolerance + cm3/1000 strokes : 5.0
cm3/1000s.	: 10.0	+ Check tolerance
		+ cm3/1000s. : 9.0
(n) 05551/0 05 YI	LIFOTTON CYUNG	†
(B) SETTING OF IN WITH GOVERNOR	MEGITON HOWA	İ
MILL GOAELGAOK		CONTROL LEVER
		+
GUIDE SLEEVE TRAV	/EL	+ control lever
Rated speed rpm	: 1417	<pre>position degree : 65.0 tolerance degree : + 4.0</pre>
guide sleeve	• 1417	T COLE MILE GEGIES . T 4.0
travel mm	: 9.99	control lever
Tolerance mm	: +- 0.15	position degree : 122.0
6 . 6 . 4	. 750	tolerance degree : + 4.0
Rated speed rpm guide sleeve	: 350	RATED SPEED
travel mm	: 1.46	+ rack travel mm : 14.40
Tolerance mm	: ← 0.20	Rated speed rpm : 1410
		Tolerance 1/min : + 5
Rated speed rpm	: 994	1 20
guide sleeve travel mm	: 6.77	+ rack travel mm : 4.00 + Rated speed rpm : 1585
Tolerance mm	: + 0.25	+ Tolerance 1/min : +- 15
TO SOLUTION TO THE		+
Rated speed rpm	: 610	rack travel mm : 0.50
guide sleeve	7.0/	Tolerance mm : + 0.50
travel mm	: 3.96	+ Rated speed rpm : 1640

LOW IDLE	
control lever position degree tolerance degree	: 82.0 : + 4.0
control lever position degree tolerance degree	: 26.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 250
CRT mm min.	: > 10.70
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 9.40 : + 0.10
Rated speed rpm	: 500
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 15.40 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 780 : 13.70 : + 0.15
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 14.30 : + 0.20
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 15.40 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1300 : 1500 : 15.40 : ← 0.10

Pressure hPa rack travel mm Tolerance mm MEASUREMENT	: - : 12.60 : + 0.10
Rated speed rpm	: 1300
Pressure hPa rack travel mm Tolerance mm	: 660 : 14.30 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 520 : 13.10 : + 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : > 270
Check	: > 80
speed 1/min	: > 290
FUEL DELIVERY CHARACTERISTICS	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1500 : 780
Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	

Rated speed rpm : 1300

Aneroid pressure

Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 136.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 200.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm : 9.40

Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 31.0

Tolerance

cm3/1000 strokes : + 2.5

Check tolerance

cm3/1000s. : \leftarrow 5.0

Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/100Gs. : 10.0

End of test specification sheet